

ecology and environment, inc.

International Specialists in the Environment

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October 4, 2006

Ken Marcy, Task Monitor United States Environmental Protection Agency 1200 Sixth Avenue, Mail Stop ECL-115 Seattle, Washington 98101

RE: Contract No. EP-S7-06-02, Technical Direction Document Number 06-01-0035 Former Nike Launch Site #81 Site Reassessment (SR) Report

Dear Mr. Marcy:

Enclosed please find the final version of the SR report for the Former Nike Launch Site #81 site, located in Poulsbo, Washington.

If you have any questions or comments regarding this report, please contact me at (206) 624-9537.

Sincerely,

ECOLOGY AND ENVIRONMENT, INC.

Renee Nordeen

START-3 Project Leader

Enclosure

cc: Ken Marcy, EPA, Site Assessment Manager, Region 10, Seattle, WA

Mark Woodke, E & E, START Project Manager, Seattle, WA

USEPA SF 1312917

Former Nike Launch Site #81 Site Reassessment Report Poulsbo, Washington

TDD Number: 06-01-0035

Region 10 START-3

Superfund Technical Assessment and Response Team

September 2006

Prepared for: Ken Marcy; Task Monitor
United States Environmental Protection Agency
1200 Sixth Avenue, Mail Stop ECL-115
Seattle, Washington 98101

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ist of Abbreviations and Acronyms

Acronym Definition

amsl above mean sea level

Army United States Army

AST Aboveground Storage Tank

bgs below ground surface

CERCLA Comprehensive Environmental Response, Compensation, and Liability Act

CLP Contract Laboratory Program

CRQL Contract Required Quantitation Limit

DERP Defense Environmental Restoration Program

DMC Deuterated Monitoring Compound

DQOs data quality objectives

E & E Ecology and Environment, Inc.

Ecology Washington State Department of Ecology

EPA United States Environmental Protection Agency

FNLS #81 Former Nike Launch Site #81

FWI First Western Investments, Inc.

GPS Global Positioning System

HOCs Halogenated Organic Compounds

IDW investigation-derived waste

LES Law Environmental Services

MEL Manchester Environmental Laboratory

MS matrix spike

NDMA n-nitrosodimethylamine

MSD matrix spike duplicate

PCBs polychlorinated biphenyls

Pesticides Chlorinated Pesticides

Acronym Definition

PPE probable point of entry

ppb parts per billion

ppm parts per million

QA quality assurance

QAPP Quality Assurance Project Plan

QC quality control

RPD relative percent difference

SI site inspection

SMC System Monitoring Compound

SOW Statement of Work

SQAP sampling and quality assurance plan

SQL sample quantitation limit

SPAF Sample Plan Alteration Form

SR Site Reassessment

START Superfund Technical Assessment and Response Team

SVOCs semivolatile organic compounds

TAL Target Analyte List

TDL target distance limit

TM Task Monitor

UDMH unsymmetrical dimethylhydrazine

U. S. United States

USACE United State Army Corps of Engineers

USTs Underground Storage Tanks

VOCs volatile organic compounds

1 Introduction

The United States (U.S.) Environmental Protection Agency (EPA) has tasked Ecology and Environment, Inc. (E & E) to provide technical support and conduct a site reassessment (SR) at the Former Nike Launch Site #81 (FNLS #81) which is located in Poulsbo, Kitsap County, Washington. E & E completed the SR activities under Technical Direction Document Number 06-01-0035 issued under EPA, Region 10, Superfund Technical Assessment and Response Team (START)-3 contract Number EP-S7-06-02. The specific goals for this SR were intended to address site assessment objectives and are presented below:

- Determine off-site migration of contaminants;
- Provide the EPA with adequate information to determine whether the site is eligible for placement on the National Priorities List; and
- Document any threat or potential threat to public health or the environment posed by the site.

As directed by the EPA Task Monitor (TM), source samples were not collected as part of the SR. Completion of this SR included reviewing site information, determining regional characteristics, collecting receptor information within the site's range of influence, executing a sampling plan, and producing this report.

This document includes site background information (Section 2); field sampling activities and analytical protocols (Section 3), quality assurance/quality control (QA/QC) criteria (Section 4), analytical results reporting and background sapling (Section 5), potential sources (Section 6), migration/exposure pathways and targets (section 7), summary and conclusions (Section 8), and references (Section 9).

2

Site Background

This section describes the site location (subsection 2.1), site description (subsection 2.2), site ownership history (subsection 2.3), site operations and waste characteristics (subsection 2.4), site characterization (subsection 2.5), and summary of investigation locations (subsection 2.6).

2.1 Site Location

Site Name:

Former Nike Launch Site #81

CERCLIS ID Number:

WA0001414184

Location:

Finn Hill Road

Poulsbo, Washington 98370

Latitude:

47° 45′ 27″, North

Legal Description:

Section 10, Township 26 North, Range 1 East

Longitude:

122° 39' 43", West

County:

Kitsap

Congressional District:

1

Site Owner/Operator:

Wal-Mart Stores, Inc.

Bentonville, Arkansas 72716-8611

(479) 273-4314

Site Contact

First Interstate Investments

former property owners)

100 Second Avenue South, Suite 250

Edmonds, Washington 98020-1449

(425) 775-6000

2.2 Site Description

The FNLS #81 is an inactive U.S. Army (Army) Nike Ajax missile launch facility located approximately 1.5 miles northwest of Poulsbo, Washington city limits on the north side of Finn Hill Road (Figures 2-1 and 2-2). The site originally consisted of 81.91 acres of level and sloping ground containing three missile launch silos, a generator building, a missile assembly building, a missile fueling station (acid fueling station), a maintenance shop (consisting of two sheds), barracks, pad-mounted transformers and a well house (Figure 2-3). All buildings associated with the site's use as a missile launch facility have been demolished. The former missile silo area is now the location of a Wal-Mart, Inc. store that opened in January 2006. A small strip mall (still under construction) and a Home Depot, Inc. store have also been constructed in the area of the former missile silos (Figure 2-4). These constructed areas are paved but the remainder of the property is still undeveloped (E & E 2006a). The primary land uses surrounding the site include undeveloped and residential land and State Route 3 on the southeast (E & E 2006a).

2.3 Site Ownership History

2.4 Site Operations and Source Characteristics

Information regarding site-specific operations and waste characteristics for the period that the site was an active facility is incomplete. However, a report prepared by

Law Environmental Services (LES) for the Army Corps of Engineers (USACE) titled "The Nike Missile Site Investigation Program" (LES, n.d.) is available which describes general activities at Nike Ajax missile sites across the nation. Information contained in this report will be used to supplement the site history.

The FNLS #81 was in operation from approximately 1955 through 1967 (E & E 1996). An aerial photograph review of the site revealed the presence of several buildings and roads in 1956 (E & E 1996). It is assumed that operations at the site began in this year. Nike Ajax missiles were deployed by the Army throughout the continental U.S. to protect major metropolitan areas and strategic military installations from aerial attack (LES, n.d.).

A septic system consisting of a 12,000 gallon septic tank and drainfield with 1,100 lineal feet of drain line was once present near the barracks (McLeod 1967). Battery electrolyte may have been disposed of to the septic system, as may have wastes requiring disposal during the facility deactivation process (LES, n.d.). At one time seven transformers were located on site: three platform-mounted near the site access road, three pad-mounted near the generator building, and one pole-mounted near the barracks. The three platform-mounted transformers and the pole-mounted transformer were found to contain polychlorinated biphenyls (PCBs) in excess of 50 parts per million (ppm), and were removed from the site (ERM 1992). Information regarding the pad-mounted transformer results was not found.

Missiles and warheads were assembled, maintained, prepared for firing, and stored at the launch area of a Nike site, with each of these activities being conducted at a separate building or locations at the site. Missiles were fueled at outdoor fueling stations with acidic liquid fuels including inhibited red fuming nitric acid, unsymmetrical dimethyl hydrazine (UDMH), aniline/furfuryl alcohol, and ethylene oxide, all of which are highly toxic. In addition, battery electrolyte, potentially containing lead, reportedly was discarded at fueling stations on Nike sites (LES, n.d.). Missile assembly operations involved the use of various solvents, anticorrosion products, and paints (LES, n.d.). Missile assembly buildings also were equipped with a full-length waste fluid collection system and associated underground drainfields (LES, n.d.). The presence of such a drainage system at the site has not been confirmed; however, records of the sale of site property list a waste sewer system containing 250 lineal feet of drain line for acid as a line item asset (McLeod 1967). The location of this system is not provided and, if

present at the site, may be associated with either the missile assembly building or with the acid fueling station. Maintenance of the missile batteries in a combat ready status required the storage, handling, and disposal of missile components as well as solvents, fuels, hydraulic fluids, paints, and other materials required for support functions (LES, n.d.).

Three subterranean missile launch silos were present at the Nike site prior to construction of the Wal-Mart facility. The former missile silo area is now the location of a Wal-Mart store that opened in January 2006. The silos were imploded and fill material was used to level the site 2006). The silos extended to approximately 25 feet below ground surface (bgs) and one contained elevators for access. One missile magazine was associated with each silo. Typically, Nike magazines contained a floor drainage system which permitted waste materials to be washed to a central sump located under the silo elevator shaft (LES, n.d.). As a general practice at Nike sites, solvents, paints, and hydraulic fluid were washed to the sumps (LES, n.d.).

The former sources at the site include contaminated soil near the former acid fueling station, missile assembly building, maintenance shop, generator building, underground storage tanks (USTs), and missile silo area. The soil was paved over in 2005 for construction of the Wal-Mart store and associated parking lot.

Potential contaminants of concern at the site associated with Nike missile operations not previously analyzed for include the following analytes associated with rocket fuels: n-nitroso-dimethylamine (NDMA), perchlorate and UDMH. Sediment and surface water samples were also analyzed for chlorinated pesticides (pesticides), PCBs, target analyte list (TAL) metals, semivolatile organic compounds (SVOCs), and volatile organic compounds (VOCs).

2.5 Site Characterization

This subsection describes previous investigations and the START site visit.

2.5.1 Previous investigations

In August 1985, the USACE, Seattle District conducted a survey of the site under the Defense Environmental Restoration Program (DERP). This survey determined that the site was essentially as the Army had left it in 1967 and that all Nike-era structures on the property had been used by (b) (6) for various purposes. The survey concluded

that because all site facilities had been used by the current property owner, and because the property owner did not express an interest in having remedial work done under DERP, no further action was required (USAED 1985).

In August 1992, a consultant to the USACE, Seattle District provided permanent closure services for the four USTs previously used to store fuel. Two 2,000-gallon USTs (81L-2 and 81L-3) were associated with the generator building, one 500-gallon UST (81L-4) was associated with the assembly building, and one 2,000-gallon UST (81L-5) was associated with the barracks. Soil samples were collected adjacent to the USTs and submitted for gasoline-, diesel-, and oil-range petroleum hydrocarbons; benzene, toluene, ethyl benzene, and xylenes; and lead analysis. Analytical results revealed fuel-related soil contamination at both USTs near the generator building and also at the UST near the barracks. Fifteen cubic yards of contaminated soil were removed from around one UST (81L-2) at the generator building. No other contaminated soils were removed. All USTs were excavated, emptied of contents, cleaned, and the contents and USTs disposed off site. Excavated soils were stockpiled at the site. (WSI 1993)

In September 1992, a consultant for FWI completed a Phase I and II environmental site assessment of the FNLS #81. During this investigation, samples were collected from on-site structures of materials suspected of containing asbestos. Analytical results indicated the presence of asbestos in the hard fittings on the piping system in the bathroom of the assembly building, in all rooms of the barracks, in insulation on a large tank in the boiler room of the barracks, and in the vinyl floor tile and associated mastic in the barracks (ERM 1992). Further, insulation of power cables in the floor of the generator building, possibly containing asbestos, was not sampled because the power to these cables may still have been connected (ERM 1992). Although not sampled due to access limitations, asbestos was suspected to be present in the entry door to each missile silo as well as in the wall spacers inside the 2 x 4 foot frame walls of the generator building (ERM 1992). All aboveground asbestos-containing material had reportedly been abated (E & E 1996). Also as a part of this investigation, soil samples of areas suspected of containing hazardous substances were collected. Soil samples submitted for analyses included a three-part composite sample of soils in the drainage ditch adjacent to the silos collected from 0 to 12 inches bgs (SP-1), one composite sample each of soils adjacent to the north (MS-1) and east (MS-2) sides of the northern maintenance shed, and one sample (ST-1) from beneath a drainage pipe associated with

the barracks septic system. All four samples were submitted for VOC analyses (EPA Method 8240). Samples SP-1, MS-1, and ST-1 were submitted for hydrocarbon identification and quantification (Washington Department of Ecology [Ecology] Method HCID-WTPH), with diesel detected in SP-1 at a concentration of 290 ppm and 2-butanone detected in MS-1 at a concentration of 0.52 ppm (E & E 1996). Samples SP-1 and ST-1 were also analyzed for chromium and total lead (ERM 1992), with concentrations in SP-1 at 17 ppm and 18 ppm, respectively, and chromium detected in ST-1 at a concentration of 21 ppm (E & E 1996).

In 1994, subsurface exploration was performed at, and adjacent to, the Nike site by Harza Northwest, Inc. A truck-mounted drill rig was used to drill eight widely-spaced boreholes (Harza 1994). Three of the boreholes (B-1, B-2, B-3) were drilled within or bordering the FNLS #81. Groundwater was encountered in two of these borings at depths of 9 and 20 feet bgs; this groundwater was possibly perched. According to borehole logs, the upper 1.5 to 5 feet of surface soils consist of loose to dense silty sand. In boring B-1, very dense olive grey sand was encountered under the upper horizon at 5 feet bgs. In borings B-2 and B-3, the upper horizon was underlain by interbedded mottled silty sand, clayey sand, sand, and silty clay/clayey silt (Harza 1994). The lower horizon ranged in thickness from 2.5 to 3 feet thick. Boring B-2 contained very dense olive grey sand from 8 feet bgs to the bottom of the hole at 20.5 feet bgs. Boring B-3 contained very dense olive grey silty sand from 5.5 feet bgs to the bottom of the hole at 20.5 feet bgs. A significant percentage of gravel and cobbles was encountered in all borings throughout the drilled intervals (Harza 1994).

In September 1995, the three pad-mounted and the three platform-mounted transformers were sampled and analyzed for halogenated organic compounds (HOCs; EPA Method 9076 - modified) and PCBs (EPA Method 8080). In October 1995, the pole-mounted transformer also was sampled and analyzed for HOCs (Method ASTM D-808) and PCBs (EPA Method 600/4-81-045). Analytical results indicated that the pole-mounted and three platform-mounted transformers contained PCBs above 50 ppm up to 157 ppm and that the three pad-mounted transformers contained less than 1 ppm PCBs. HOC concentrations for the platform-mounted transformer ranged from 126 to 206 ppm, the pole-mounted transformer contained 480 ppm HOCs, and the three pad-mounted transformers contained less than 100 ppm HOCs. In February 1996, the four PCB transformers were manifested off-site for disposal (Reynolds 1996).

In September 1995, the USACE excavated four test pits in, or adjacent to, the former location of UST 81L-2 at the generator building (USACE 1995). At least one soil sample was collected from each pit for fixed laboratory analyses of gasoline-, diesel-, and oil-range petroleum hydrocarbons; benzene, toluene, ethylbenzene, and xylene; and total lead (USACE 1995). Analytical results for this work are not available (Bilodeau 1996). Reportedly, the fifteen cubic yards of soil previously excavated from this location were transported to an off-site disposal facility in conjunction with this sampling effort (Bilodeau 1996). No additional work was conducted for contaminated soils adjacent to 81L-3 or 81L-5 because one UST was determined not to require further investigation under State of Washington UST regulations and the other UST location could not be identified (Bilodeau 1996). A draft request for partial closure of USTs at the site was submitted by the USACE to Ecology on September 27, 1996 in an Independent Remedial Action report (Bilodeau 1996). In November 1995, a consultant for FWI collected one water sample from each of the three silos. Approximately 17 feet of water was present in each silo with each silo estimated to contain 240,070 gallons of water. The samples were composites consisting 50% of water taken from the surface and 50% of water taken from the bottom of the water column. The samples were analyzed for total petroleum hydrocarbons (EPA Method 418.1), VOCs (EPA Method 624), PCBs (EPA Method 8080), and priority pollutant metals (EPA Method 6010, except for mercury which was analyzed by cold vapor extraction; Becker 1996). Concentrations of PCBs were detected in all three samples in the 0.8 to 0.9 parts per billion (ppb) range, and concentrations of both total and dissolved lead, copper, and zinc were also detected in all three samples. In September 1996, water in the silos was pumped out by this consultant to an irrigation line laid out in the field north of the drainage ditch adjacent to the silos.

In April 1996, lead-based paint in the bathroom of the officers quarters (in the barracks; Figure 2-3) and in the bathroom of the assembly building was removed and placed in 55-gallon drums by a consultant to FWI. On October 8, 1996, the START met (b) (6) a member of the (b) (6) family, and (b) (6) a planning consultant to FWI, near the site. A walk-through of all on-site structures was conducted with the exception of the missile silos because the elevators to the silos have not been operational since the transformers were removed. The missile assembly building (Figure 2-3) contained seven 55-gallon drums marked "Danger/Lead" that were generated during the lead-based paint abatement in April 1996. Two of the drums reportedly were empty.

The drums were stored in a room that contained a pile of debris and three of the drums were resting on this pile. Most of the floor space of this building was covered with debris largely consisting of inert materials such as wood, doors, old mattresses, pipes, and an abandoned refrigerator. No drainage trenches drain pipes, or sumps were observed that might have indicated the presence of a drainage system which is generally associated with Nike assembly buildings. A small building was located northwest of the assembly building. This building contained two open bags of concrete and one 55-gallon fiber drum labeled "Meadow Gold". The drum felt empty when pushed. The maintenance shop (Figure 2-3) consisted of two contiguous sheds. The smaller shed contained very little debris. The larger shed was full of debris consisting of remnants of cable wire on spools, wood, workbenches, empty 5-gallon buckets, tires, and metal tubing among other items. Much of the concrete floor of the larger shed was stained with what appeared to be motor oil. The acid fueling station (Figure 2-3) contained a concrete pad, approximately 10 by 15 feet; a concrete structure that appeared to be a hexagonal vault or tank; and a second concrete pad, approximately 4 by 7 feet. These structures were contiguous and a water pipe with a shower head and a vent pipe extended from the second concrete pad (which was believed to be the foundation for an acid fueling station). The area was heavily vegetated and no outward signs of a drain field were present (i.e., sumps or drains). The generator building (Figure 2-3) contained an aboveground storage tank previously used by the Army to store diesel fuel and later used by (6) to store gasoline. Two series of trenches ran the length of the concrete foundation of the building. The northernmost trenches were used to convey piping from the aboveground storage tank (AST) to the generators. The southernmost trenches were used for electrical conduit. No drains or sumps were observed in these trenches or in the building foundation. A vent pipe extended from the ground on the northwest corner of the building. The pipe was connected to the AST and at one time also was connected to the former UST that was located in this area. A fenced enclosure containing the three pad-mounted transformers (non-PCB transformers) was located southeast of the generator building (Figure 2-3). The concrete under the transformers appeared to be stained with oil. Although the missile silos were not entered, the concrete roofs of the silos, which are at the ground surface, were observed. The silo roofs contained several pipe, wiring, and ventilation vaults. A large, backfilled excavation was present north of each silo. The excavations extended across the silo perimeter road north to the drainage

ditch. Nearly the entire length of the drainage ditch had also been excavated and backfilled as had a trench along the northern side of the road to the generator building. The excavations were conducted to remove suspected asbestos containing electrical conduit leading from the generator building to the missile silos (E & E 1996). The barracks septic system was located southeast of site's property boundary on land sold by to the State of Washington in the 1970s. A locked gate was present in the site's perimeter fence at this location.

The well house (Figure 2-3) contained a water tank with an approximate capacity of 1,000 gallons and the water well. The well pump had been disconnected; however, it was still in place.

Between December 1996 and January 1997, the START conducted on-site sampling activities to determine whether hazardous substances remained at the site. A total of 43 soil samples were collected at the Nike site and were analyzed for pesticides, PCBs, TAL metals, SVOCs, and VOCs. The analytical results indicated significant concentrations of the pesticide 4,4'-DDT and the TAL metals cadmium, lead, magnesium and nickel; there were no significant PCB, SVOC, or VOC concentrations.

A total of ten groundwater samples were collected, seven of which were from offsite drinking water wells where no elevated concentrations were detected. Three groundwater samples were collected on-site, including two from shallow groundwater obtained from GeoprobeTM boreholes, and one from the former drinking water well. The GeoprobeTM samples were collected from approximately 5 feet bgs near the transformer pad and acid fueling station, respectively. Significant concentrations of lead and nickel were identified. However, these exceedances were from samples collected in shallow groundwater and not from drinking water.

The sample from the former drinking water well contained elevated concentrations of lead and nickel. This well has not been used for drinking water purposes for several years and there are no plans to use it in the future (Svarthumle 2006).

No other significant or elevated concentrations were identified in either source samples or target samples during this investigation.

2.5.2 START Site Visit

On March 7, 2006, one START member met with the representative of the (b) (6) Family, (b) (6) of FWI; Fred Becker, an environmental consultant that had performed previous site work on the property; and Keith Svarthumle, utilities foreman for the City of Poulsbo. (b) (6) showed the location of the on-site well (currently on the perimeter of the Wal-Mart parking lot but maintained by the City of Poulsbo) and Mr. Svarthumle showed the location of the Bus Barn well (a City well located approximately 0.3 mile downgradient from the site). The on-site well has not been maintained for several years and its' integrity is unknown. The former location of the missile silos is now a Wal-Mart store and a small strip mall with a paved parking lot between them (Figure 2-4). No former site features remain other than the on-site well.

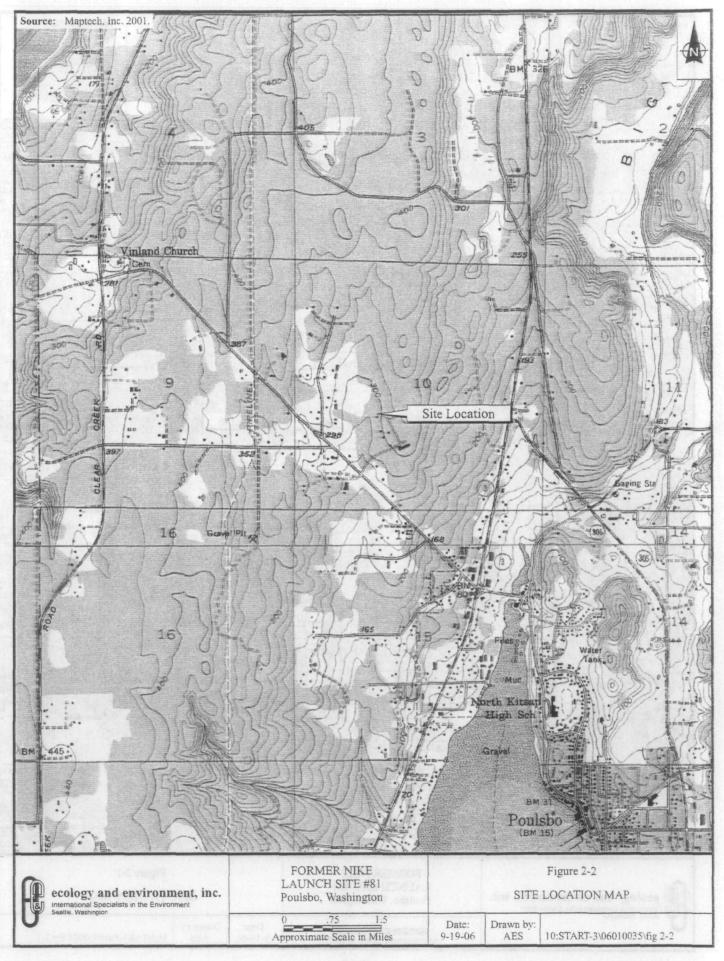
2.6 Summary of SR Investigation Locations

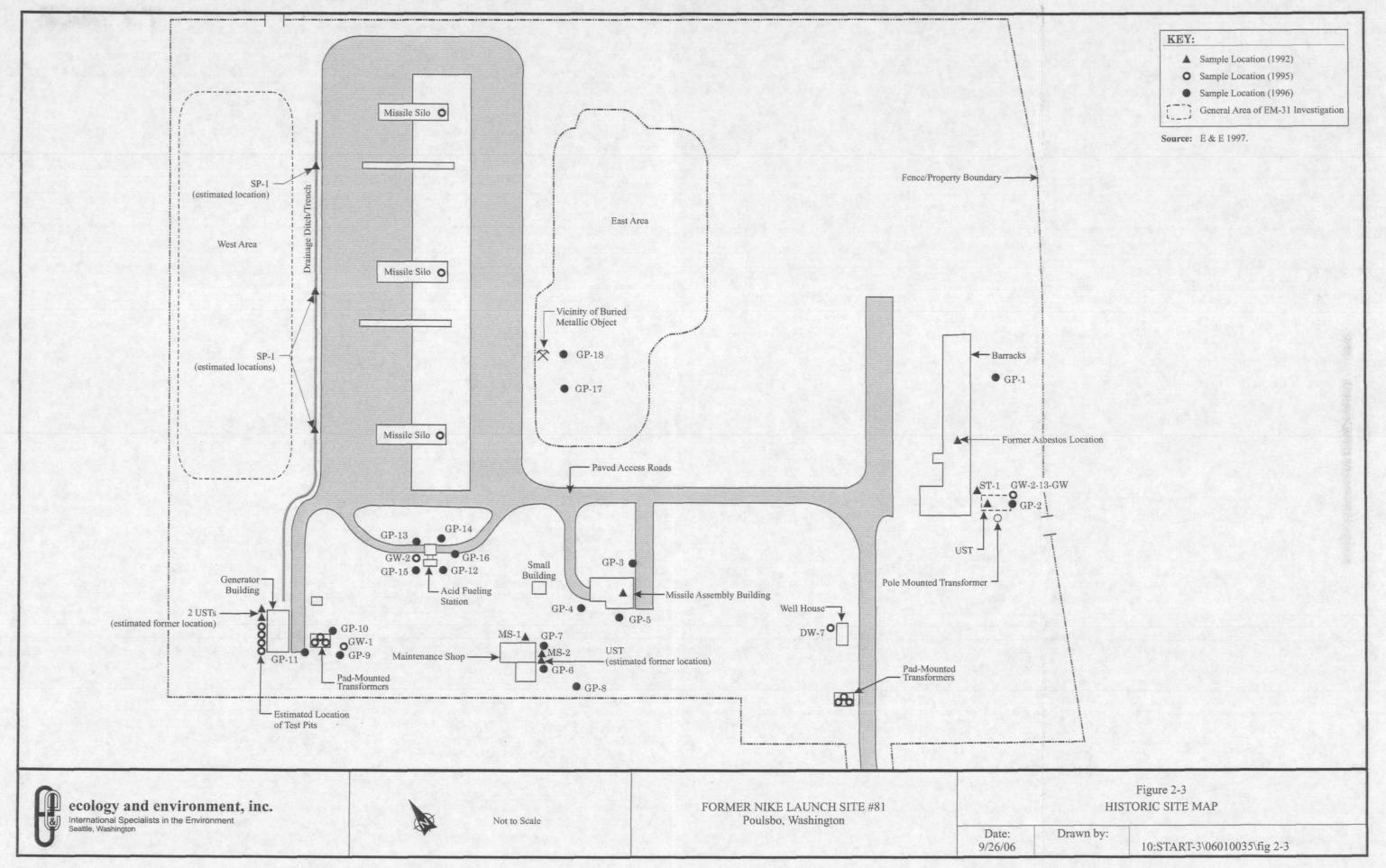
Sampling under the SR was conducted at areas (i.e., targets) that may have been contaminated through the migration of Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)-regulated hazardous substances from onsite sources. Sources were not sampled during the SR at the direction of the EPA TM because any potential remaining sources are now underneath pavement. The features identified for inspection under the FNLS #81 SR were determined based on a review of background information. These features are discussed below:

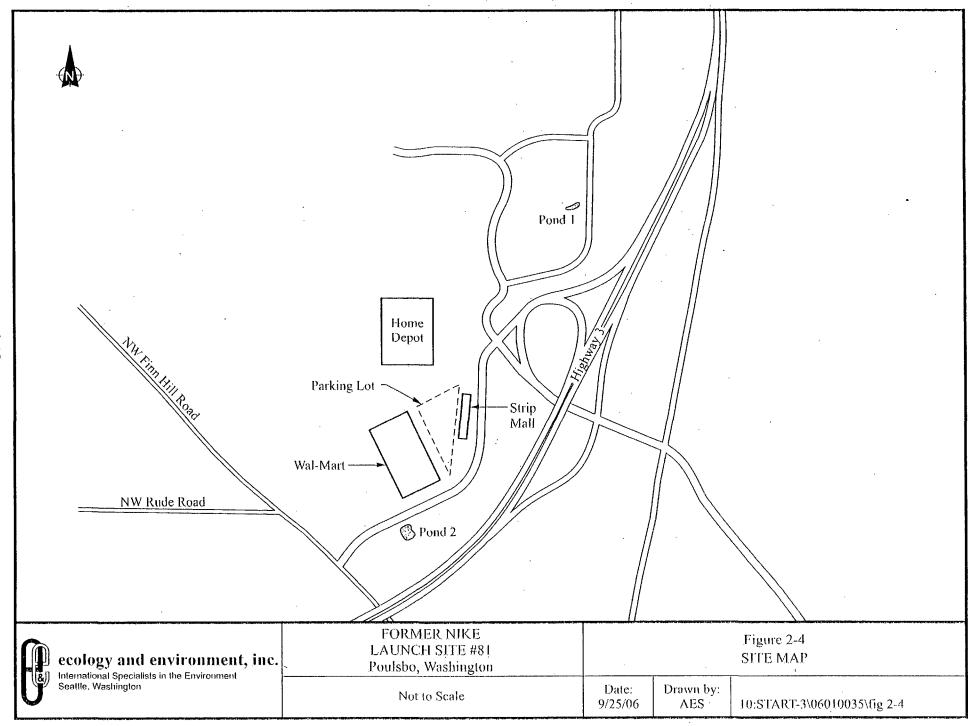
Targets:

- **Groundwater.** Groundwater potentially has been impacted by on-site sources. This investigation will assist in determining whether the shallow aquifer near the site has elevated concentrations of contaminants not previously analyzed for, including perchlorate, UDMH and NDMA.
- Sediment and Surface Water. Sediment and surface water potentially have been impacted by on-site sources. This investigation will assist in determining whether sediment and surface water near the site have elevated concentrations of contaminants, including pesticides, PCBs, SVOCs, TAL metals, and VOCs, and some contaminants not previously analyzed for, including perchlorate, UDMH and NDMA.









Field Activities and Analytical Protocol

A sampling and quality assurance plan (SQAP) for the FNLS #81 project was developed by the START prior to field sampling. The SQAP describes the sampling strategy, sampling methodology, and analytical program used to investigate potential hazardous substance sources and potential targets. With few exceptions, SR field activities were conducted in accordance with the approved SQAP. Deviations from the SQAP are described in this section, Section 7 (target areas) and in the sample plan alteration form (SPAF; Appendix A).

The SR field sampling event was conducted on June 6, 2006. A total of 15 samples, including three background samples, and one QA (trip blank) sample, were collected for the SR. Sample types and methods of collection are described below. A list of all samples collected for laboratory analysis under the SR is contained in Table 3-1. Photographic documentation of SR field activities is included as Appendix B.

Alphanumeric identification numbers applied by the START to each sample location (e.g., MN01GW01) are used in the report as the sample location identifiers. Table 3-2 summarizes the sample tracking and location codes. Sample locations are provided in Figure 3-1.

This section describes sampling methodology (subsection 3.1), analytical protocol (subsection 3.2), global positioning system (GPS; subsection 3.3), and investigation-derived waste (IDW; subsection 3.4).

3.1 Sampling Methodology

Grass leaves and other vegetative material, rocks, and other debris unsuitable for analysis were removed from samples before being placed into sample containers.

3

Field Activities and Analytical Protocol

A sampling and quality assurance plan (SQAP) for the FNLS #81 project was developed by the START prior to field sampling. The SQAP describes the sampling strategy, sampling methodology, and analytical program used to investigate potential hazardous substance sources and potential targets. With few exceptions, SR field activities were conducted in accordance with the approved SQAP. Deviations from the SQAP are described in this section, Section 7 (target areas) and in the sample plan alteration form (SPAF; Appendix A).

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This section describes sampling methodology (subsection 3.1), analytical protocol (subsection 3.2), global positioning system (GPS; subsection 3.3), and investigation-derived waste (IDW; subsection 3.4).

3.1 Sampling Methodology

Grass leaves and other vegetative material, rocks, and other debris unsuitable for analysis were removed from samples before being placed into sample containers.

Samples were stored on ice in coolers continuously maintained under the custody of START personnel. Sampling methods used for each sample type are described below.

3.1.1 Sediment Sampling

Two sediment samples (PD01SD01 and PD02SD01) were collected including one background sample. A planned sediment sample was not collected from Johnson Creek as no sediment was present. All sample aliquots were collected using dedicated stainless steel spoons at depths from 0 to 6 inches bgs except aliquots for VOC analysis which were collected directly into Core N' OneTM soil samplers from 0 to 6 inches bgs.

Material for the remaining analyses was collected into a dedicated stainless steel bowl, homogenized, and then transferred into appropriate prelabeled sample containers.

3.1.2 Groundwater Sampling

Nine groundwater samples (MN01GW01, MN02GW01, MW01GW01, and DW01GW01 through DW06GW) were collected including one background sample. The monitoring well sample aliquots were collected using a groundwater pump with a flow rate set at approximately 1 liter per minute. Water quality parameters were not collected; all locations were purged for a minimum of 15 minutes prior to sample collection. The municipal and domestic well samples were collected by running the water for a minimum of 15 minutes prior to collecting the sample. Material was collected directly into the sample containers. Aliquots for VOC analyses were preserved to a pH < 2 with hydrochloric acid.

3.1.3 Surface Water Sampling

Three samples (PD01SW01, PD02SW01 and CR01SW01) were collected including one background sample. All sample aliquots were collected by dipping the sample container directly into the water. The surface water samples were collected before the sediment samples at each of the two co-located points (PD01 and PD02). Aliquots for VOC analyses were preserved to a pH < 2 with hydrochloric acid.

3.1.4 QA/QC Sampling

One trip blank sample (Contract Laboratory Program [CLP] sample number J73W7) was collected directly into the sample container from a distilled, deionized water

source prior to the field event. The trip blank was preserved to a pH \leq 2 with hydrochloric acid and was maintained with the sample containers throughout the field event.

3.2 Analytical Protocol

Analytical methods applied to SR samples include fixed laboratory analysis of pesticides, PCBs, SVOCs, VOCs (EPA CLP Statement of Work [SOW] SOM01.1), TAL metals (CLP SOW ILM05.3), perchlorate (EPA Method 314.0), NDMA (EPA SW-846 Method 8270C), and hydrazines (internal laboratory method STL SOP UDMH). The types of analysis applied to samples were based on known or suspected contaminants. For this reason, some samples were not analyzed for all of the analytical methods listed above. Table 3-1 lists analyses applied to each sample. Analyses of samples collected during the SR for pesticides, PCBs, SVOCs, and VOCs were performed by DataChem Laboratories, Inc., a CLP laboratory located in Salt Lake City, Utah. Analyses of samples collected during the SR for TAL metals were performed by Bonner Analytical, a CLP laboratory located in Hattiesburg, Mississippi. Analyses of samples collected during the SR for NDMA and perchlorate were performed by the EPA Manchester Environmental Laboratory (MEL) located in Port Orchard, Washington. Analyses of samples for UDMH were performed by STL-Denver, Inc., a START-subcontracted commercial laboratory located in Arvada, Colorado. Analytical data validation memoranda are provided in Appendix C.

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3.3 Global Positioning System

A Garmin eTrex GPS survey unit was used by the START personnel to approximate the sample location coordinates of the SR samples. Recorded GPS coordinates by sample point were used to locate samples on Figure 3-1 and are listed in Appendix D.

3.4 Investigation-Derived Waste

IDW generated during the SR sampling effort consisted of solid disposable sampling equipment and disposable personal protection equipment. All IDW was

disposed as non-hazardous waste by the START at a municipal landfill in nearby Seattle, Washington.

Table 3-1 Sample Collection and Analytical Summary

| Table 3-1 | | Ollection and | | | | 2.34 | 455 | | * 3.7 | W1. 18 W | THE 20 | Page 1 | 5.34 | | |
|-------------------|-------------------|---------------|--------|----------|----------|-----------------------------------------|-------------|-----------------|------------|----------|----------|-------------------|--------|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | | SAMPLE | CONNE | ALION IN | CORMAY | ON | | | | NAL | | Sili | | 88 (1.42) 88 (1.42) | and elected Albert Colors to the territory and the colors of the colors |
| EPÁ Šample líj | CLP Sämple ID" | Lucation ID | Matrix | Sampler | Date | Time | NDMA | Perchlorat e | Pesticides | PCBs | SVOCS | i Alt. Vietais | UDWILL | vocs | Sample Description |
| 06234050 | NA | MN01GW01 | GW | JF | 6/6/2006 | THE CASE AND ADDRESS OF THE PARTY OF | X | X | | | | | X | 155 A 25 B 250 | Poulsbo Bus Barn Well. Clear, no odor. |
| 06234051 | NA | MN02GW01 | GW | JF | 6/6/2006 | | | Х | | | | | X | | Poulsbo Westside Well - Background GW. Clear, no |
| | | | | | | | | | | | | | | | odor. Perchlorate MS/MSD. |
| 06234052 | NA | MW01GW01 | GW | JF | 6/6/2006 | 10:35 | X | X | | | | | X | | Poulsbo Monitoring Well. Clear, no odor. |
| 06234053 | J73T9 · | PD01SW01 | SW | JF | 6/6/2006 | 15:00 | X | Х | X | X | X | X | X | X | Pond 2. Clear, no odor. |
| 06234054 | J73W0 | PD01SD01 | SED | JF · | 6/6/2006 | 15:15 | X | X | X | X | X | X | X | X | Pond 2. Light brown sandy silt, no vegetation. |
| 06234055 | J73W1 | PD02SW01 | SW | JF | 6/6/2006 | 15:20 | X | Х | X | X | X | X | Χ | | Pond 1 - Background SW. Clear, no odor. |
| 06234056 | J73W2 | PD02SD01 | SED | JF | 6/6/2006 | 15:30 | X | Х | Х | Х | Х | X | Х | Х | Pond 1 - Background Sediment. Light brown sandy |
| | | | | | | | | | | | | | | | silt, no vegetation. MS/MSD. |
| 06234057 | J73W3 | CR01SW01 | SW | JF | 6/6/2006 | 14:45 | | X | X | X | X | X | X | X | Johnson Creek. Clear, no odor. MS/MSD. |
| 06234061 | NA | DW01GW01 | GW | JF | 6/6/2006 | 11:30 | X | X | <u> </u> | | | ļ | X | | Accumar Corporation. Clear, no odor. |
| 06234062 | NA | DW02GW01 | GW | JF | 6/6/2006 | 10:30 | X | X | | | | | Х | | (b) (6) Residence. Clear, no odor. Perchlorate |
| | | | | | | | ļ | | | <u> </u> | ļ | | | | MS/MSD. |
| 06234063 | NA | DW03GW01 | GW | JF | 6/6/2006 | \$ | + | X | |] | <u> </u> | <u> </u> | X | | Residence. Clear, no odor. |
| 06234064 | NA | DW04GW01 | GW | JF | 6/6/2006 | | | X | | ļ | | <u> </u> | X | | Residence. Clear, no odor. |
| 06234065 | NA | DW05GW01 | GW | JF | 6/6/2006 | \$ | | X | | <u> </u> | <u> </u> | | X | | Residence. Clear, no odor. |
| 06234066 | NA . | DW06GW01 | GW | JF | 6/6/2006 | *************************************** | · | X | | ļ | | | X | ļ | Residence. Clear, no odor. |
| NA | J73W7 | Trip Blank | TB | JF | 6/6/2006 | 08:00 | <u> </u> | <u> </u> | | | <u></u> | | | X | Trip Blank 1 |

Inorganic CLP sample identifications are the same as organic but start with "M".

Key:

bgs = Below ground surface.

CLP = Contract Laboratory Program.

EPA = United States Environmental Protection Agency.

GW = Groundwater.

ID = Identification.

JF = Joe Fowlow.

NA = Not Applicable.

NDMA = N-Nitrosodimethylamine. PCBs = Polychlorinated Biphenyls.

Pesticides = Chlorinated Pesticides.

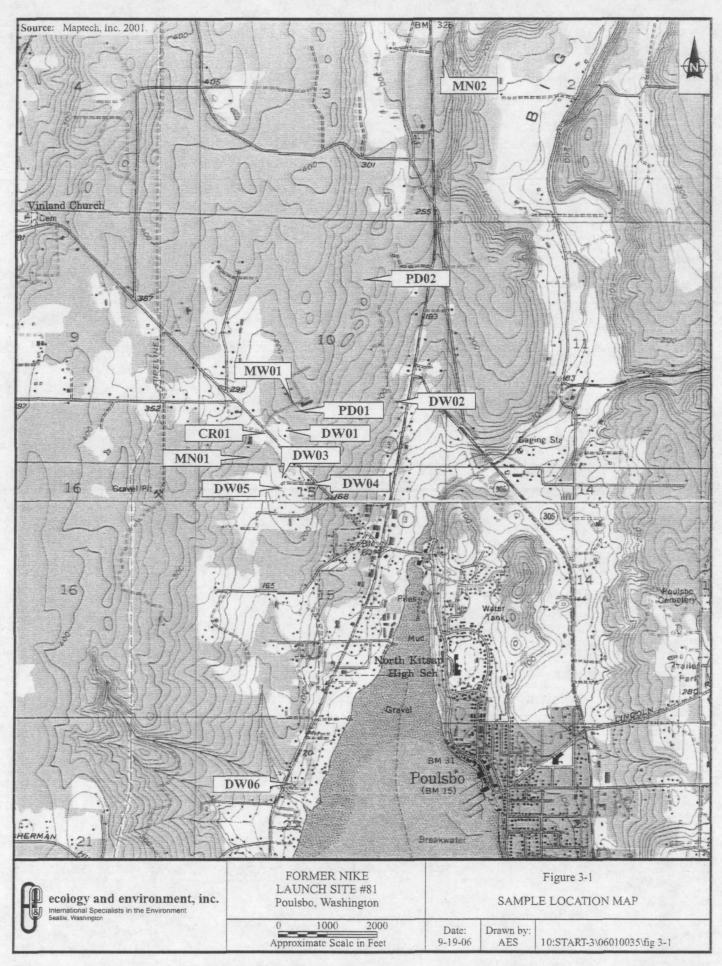
SED = Sediment.

SVOCs = Semivolatile Organic Compounds.

TAL = Target Analyte List.

TB = Trip Blank.

UDMH = Unsymmetrical Dimethyl Hydrazine. VOCs = Volatile Organic Compounds.



4

Quality Assurance/Quality Control

QA/QC data are necessary to determine precision and accuracy and to demonstrate the absence of interferences and/or contamination of sampling equipment, glassware, and reagents. Specific QC requirements for laboratory analyses are incorporated in the Contract Laboratory Program Statement of Work for Organic Analyses (EPA 2003) and the Contract Laboratory Program Statement of Work for Inorganic Analyses (EPA 2004b). These QC requirements or equivalent requirements found in the analytical methods were followed for analytical work on the SR. This section describes the QA/QC measures taken for the SR and provides an evaluation of the usability of data presented in this report.

All samples were collected following the guidance of the SQAP (E & E 2006b) and the START quality assurance project plan (QAPP; E & E 2005). Data from the CLP and MEL laboratories were reviewed and validated by EPA chemists. Data from the commercial laboratory were reviewed and validated by a START chemist. Data qualifiers were applied as necessary according to the following guidance:

- EPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review (EPA 2004a); and
- EPA Contract Laboratory Program National Functional Guidelines for Organic Data Review EPA 1999).

In the absence of other QC guidance, method-specific QC limits were also utilized to apply qualifiers to the data.

4.1 Satisfaction of Data Quality Objectives

The following EPA (EPA 2000) guidance document was used to establish data quality objectives (DQOs) for this SR:

 Guidance for the Data Quality Objectives Process (EPA QA/G-4), EPA/600/R-96/055.

The EPA TM determined that definitive data without error and bias determination would be used for the sampling and analyses conducted during the field activities. The data quality achieved during the fieldwork produced sufficient data that met the DQOs stated in the SQAP. A detailed discussion of accomplished SR objectives is presented in the following subsections.

4.3 Project-Specific Data Quality Objectives

The laboratory data were reviewed to ensure that DQOs for the project were met. The following describes the laboratories' ability to meet project DQOs for precision, accuracy, and completeness and the field team's ability to meet project DQOs for representativeness and comparability. The laboratories and field team were able to meet DQOs for the project.

4.3.1 Precision

Precision measures the reproducibility of the sampling and analytical methodology. Laboratory and field precision is defined as the relative percent difference (RPD) between duplicate sample analyses. The laboratory duplicate samples or MS (matrix spike)/MS duplicate (MSD) samples measure the precision of the analytical method.

The RPD values were reviewed for all commercial laboratory samples. All duplicate sample results were within QC limits. The DQO for precision of 85% was met.

4.3.2 Accuracy

Accuracy measures the reproducibility of the sampling and analytical methodology. Laboratory accuracy is defined as the deuterated monitoring compound (DMC)/system monitoring compound (SMC) spike percent recovery for organic analyses or the MS percent recoveries for all analyses. The DMC/SMC percent recovery values were reviewed for all appropriate sample analyses. All DMC/SMC results were within QC. The MS percent recovery values were reviewed for all MS/MSD analyses. A total of 10 sample results (approximately 1.1% of the data) were qualified as estimated

quantities (J) based on MS percent recovery outliers. The project DQO for accuracy of 85% was met.

4.3.3 Completeness

Data completeness is defined as the percentage of usable data (usable data divided by the total possible data). All data were reviewed for usability. Five sample results were rejected (approximately 0.6% of the data); therefore the project DQO for completeness of 90% was met.

4.3.4 Representativeness

Data representativeness expresses the degree to which sample data accurately and precisely represent a characteristic of a population, parameter variations at a sampling point or environmental condition. The number and selection of samples were determined in the field to account accurately for site variations and sample matrices. The DQO for representativeness of 85% was met.

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4.3.5 Comparability

Comparability is a qualitative parameter expressing the confidence with which one data set can be compared to another. Data produced for this site followed applicable field sampling techniques and specific analytical methodology. The DQO for comparability was met.

4.4 Laboratory QA/QC Parameters

The laboratory data also were reviewed for temperatures/holding times, laboratory blank samples, trip blank samples, and serial dilution samples. These QA/QC parameters are summarized below. In general, the laboratory and field QA/QC parameters were considered acceptable.

4.4.1 Temperatures/Holding Times

The samples were maintained within QC temperature limits. All samples met QC holding time criteria.

4.4.2 Laboratory Blanks

All laboratory blanks met the frequency criteria. The following potential contaminants of concern were detected in the laboratory blanks and were qualified as not detected (U) as listed in the data validation memoranda:

Pesticides: methoxychlor;

• SVOCs: acetophenone, bis(2-ethylhexyl)phthalate, butylbenzyl

phthalate, di-n-butyl phthalate;

• TAL Metals: aluminum, arsenic, zinc; and

• VOCs: methylene chloride, toluene.

4.4.3 Trip Blanks

One trip blank sample was collected during the field event; therefore meeting the frequency criteria for VOC analysis of one trip blank sample per VOC cooler. No analytes were detected in the trip blank.

4.4.4 Serial Dilution

One serial dilution sample was analyzed per 20 samples per matrix; therefore meeting the frequency criteria. Ten sample results (approximately 1.1% of the data) were qualified as estimated quantities (J or UJ) based on serial dilution QC outliers.

5

Analytical Results Reporting and Background Samples

This section describes the reporting and methods applied to analytical results presented in Sections 6 (sources) and 7 (targets) of this report, and discusses background locations and sample results. Table 3-1 lists all samples collected for laboratory analysis.

5.1 Analytical Results Evaluation Criteria

Analytical results presented in the summary tables of Section 7 show all analytes detected above laboratory detection limits in bold type. Analytical results indicating significant/elevated concentrations of contaminants in source samples (Section 6) and target samples (Section 7) with respect to background concentrations are shown underlined and in bold type. For the purposes of this investigation, significant/elevated concentrations are those concentrations that are:

- Equal to or greater than the sample's Contract Required Quantitation Limit (CRQL) or the Sample Quantitation Limit (SQL) when a non-CLP laboratory was used; and
- Equal to or greater than the background sample's CRQL or SQL when the background concentration was below detection limits; or
- At least three times greater than the background concentration when the background concentration equals or exceeds the detection limits.

The analytical summary tables present all detected compounds, but only those detected analytes at potential sources and targets meeting the significant/elevated concentration criteria are discussed in the report text. Concentrations are not considered elevated if they are not also found in sources at significant concentrations. All detected concentrations are also discussed for the background samples. When samples were

diluted for re-analysis at a laboratory, the dilution results were considered for evaluation and are provided in the tables.

5.1.1 Sample Results Reporting

The analytes aluminum, calcium, iron, magnesium, potassium, and sodium are common earth crust elements. Based on EPA, Region 10 policy, these common earth crust elements will not be discussed in this report.

5.2 Background Samples

Background groundwater, sediment and surface water samples were collected for comparison to the target groundwater, sediment and surface water samples, respectively. Results for the background samples are shown in the first column of the analytical results summary tables in Sections 6 and 7 for comparison against source and target sample results.

5.2.1 Background Groundwater

5.2.1.1 Sample Location

One off-site background groundwater sample (MN02GW01) was collected from the City of Poulsbo's Westside Well approximately 1.5 miles northeast of the site (Figure 3-1). The sample was clear with no odor.

5.2.1.2 Sample Results

None of the analyzed contaminants (NDMA, perchlorate or UDMH) were detected in the background groundwater sample.

5.2.2 Background Sediment

5.2.2.1 Sample Location

One off-site background sediment soil sample (PD02SD01) was collected from 0 to 6 inches bgs from Pond 1 approximately 3,000 feet northeast of the site (Figure 3-1). This sample was co-located with the background surface water sample (PD02SW01). The sample consisted of moist brown sand.

5.2.2.2 Sample Results

Ten TAL metals (arsenic, barium, chromium, cobalt, copper, lead, manganese, nickel, vanadium and zinc) and two VOCs (acetone and 2-butanone) were detected in sample PD02SD01. NDMA, perchlorate, pesticides, PCBs, SVOCs and UDMH were not detected in this sample. Background sediment sample results are presented in the first column of Table 7-3.

5.2.3 Background Surface Water

5.2.3.1 Sample Location

One off-site background surface water sample (PD02SW01) was collected from Pond 1 approximately 3,000 feet northeast of the site (Figure 3-1). This sample was collocated with the background sediment sample (PD02SD01). The sample was clear and had no odor.

5.2.3.2 Sample Results

One TAL metal, manganese, was detected in sample PD02SW01. NDMA, perchlorate, pesticides, PCBs, SVOCs, UDMH and VOCs were not detected in this sample. Background surface water sample results are presented in the first column of Table 7-4.

6

Potential Sources

This section describes the potential source area and provides selected analytical results of samples obtained during a previous investigation at the site. Samples were not collected from the source area during the SR at the direction of the EPA TM. When appropriate, source sample results from the 1996 SI are discussed.

6.1 Source Description

The FNLS #81 source areas included the former acid fueling station, missile assembly building, maintenance shop, generator building, UST, and missile silo area. Because source samples were not collected as a part of this SR, sample results from the 1996 site inspection (SI) will be used (Table 6-1). The only contaminants detected at significant concentrations in any samples during the SI were the pesticide 4,4'-DDT (found in subsurface soil samples near the former maintenance shop area; see Figure 2-3) and the TAL metals cadmium, lead and nickel (found in subsurface soil samples near the former acid fueling station and/or in the area east of the missile silos; Figure 2-3). These sources have all been paved over since the SI.

Table 6-1 Selected 1996 Site Inspection Samples Analytical Results Summary

| CLP Organic ID | JM166 | JM198 | JM170 | JM200 |
|------------------------------------------------|------------|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|
| Station Location | GP-1-7 | GP-6-2 | GP-6-7 | GP-8-2 |
| | | Maintenance | Maintenance | |
| Description | Background | Shop Area | Shop Area | Śliop Area |
| Children en e | | the second second | And the second s | lucio co Canadan matematica di Arteria. |
| 4,4'-DDT | 3.7 U | <u>5.1</u> | <u>3.8</u> | <u>8.1</u> |

| CLP Inorganie ID | MJM864 | MJM877 | AMJM888 | MJM866 | MJM884 | MJM886 |
|-----------------------------|-----------------|--------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|----------------------|
| Station Location | G A GP=1-4 | GP-7-2 | GP-12-2 | GP-14-4 | GP-16-9 | GP-17-9 |
| | Background | Maintenance Shop Area | Acid Station Fueling Area | Acid Station Eucling Area | Acid Station Fueling Area | East Area |
| Dangel Landstell by Westell | DEPHED TO STATE | A second to be a second | in the state of th | La de La Carta de La Carta de | en a state of the same and the same and the | State and the second |
| Cadmium | 0.26 U | <u>0.27</u> | <u>0.57</u> | <u>0.65</u> | na | 0.22 |
| Lead | 5.3 | <u>30.2</u> | <u> 17.4 JL</u> | na | na | na |
| Nickel | 29.9 | na | : na | <u>271</u> | <u> 107</u> | na |

Note:

Bold type indicates the sample result is above the sample quantitation/detection limit.

Underline type indicates the sample result is elevated as defined in Section 5.

Key:

CLP = Contract Laboratory Program.

ID = Identification.

J = The analyte was positively identified. The result is estimated because the concentration is below the sample quantitation limit.

L = Low bias.

μg/kg = Micrograms per kilogram.
mg/kg = Milligrams per kilogram.
na = not applicable.

U = The analyte was not detected at or above the listed detection limit.

7 Migration/Exposure Pathways and Targets

The following subsections describe migration pathways and potential targets within the site's range of influence (Figures 7-1 and 7-2). This section discusses the groundwater migration pathway (subsection 7.1) and the surface water migration pathway (subsection 7.2). At the EPA TM's direction, the soil exposure pathway and the air migration pathway were not evaluated.

7.1 Groundwater Migration Pathway

The target distance limit (TDL) for the groundwater migration pathway is a 4-mile radius that extends from the sources at the site. Figure 7-1 depicts the groundwater 4-TDL.

7.1.1 Geologic Setting

The site is underlain by approximately 80 feet of glacial till deposited during the Vashon period (ERM 1992). Vashon till is typically impervious to groundwater flow except through thin, often discontinuous, sand and gravel stringers. The Vashon till will cause precipitation to perch at or near the ground surface and may hold such waters in shallow depressions allowing the formations of wetlands (ERM 1992). The Vashon till is underlain by the Puyallup Formation which consists of sand and gravel with some clay interbeds. The Admiralty Formation, which underlies the Puyallup Formation, is a regional clay formation of varying thicknesses with low permeability (ERM 1992).

7.1.2 Aquifer System

Well logs of test borings in the area indicate that perched water occurs on the surface of the glacial till, at an average depth of 2.5 feet bgs (ERM 1992). A boring log

of the on-site water supply well indicates that the first groundwater aquifer occurs at a depth of approximately 103 feet bgs. Static water level in the well was recorded at a depth of 93 feet bgs. The well was completed in a well graded sand formation suggesting that it taps the Puyallup Formation (ERM 1992). This well was taken out of service when transformers supplying power to the well were removed (E & E 1996).

In 1994, eight boreholes were installed at and adjacent to the FNLS #81 site by Harza Northwest, Inc. Possibly perched groundwater was encountered in two borings at depths of 9 and 20 feet bgs. The upper 1.5 to 5 feet of surface soils consist of loose to dense silty sand. In two boreholes, the upper horizon was underlain by interbedded mottled silty sand, clayey sand, sand, and silty clay/clayey silt The lower horizon ranged in thickness from 2.5 to 3 feet thick. A significant percentage of gravel and cobbles was encountered in all borings throughout the drilled intervals (Harza 1994).

7.1.3 Drinking Water Targets

Seventeen municipal water systems are present within 4 miles of the site (Ecology 2006). The majority of these systems (11 total) consist of one well serving a small community of less than 300 people. Four of the multiple well water systems have all their wells in the same distance ring. The two remaining water systems with multiple wells (i.e., the City of Poulsbo and Naval Sub Base Bangor) have wells in more than one distance ring. The City of Poulsbo operates five wells serving approximately 7,450 people: three active, one standby, and one inactive (Svarthumle 2006). The Bangor Naval Sub Base operates four active wells serving a total population of 15,843 people (Pittman 2006). Water for both of these systems is blended and no one well contributes more than 40 percent to the water system (Pittman 2006, Svarthumle 2006).

A search of State of Washington water well reports maintained by the State of Washington (http://apps.ecy.wa.gov/welllog/) revealed 1,571 well logs within 4 miles of the site (Ecology 2006). Although not on record, it is expected that additional private wells exist due to the rural setting of the site. Based on the average number of persons per household for Kitsap County of 2.60 people, it is estimated that 4,084.6 people use domestic wells for drinking water (USDC 2000). The nearest well is a City of Poulsbo standby municipal well located approximately 0.3 mile southeast of the site (Ecology 2006). Populations using groundwater for drinking water are summarized in Table 7-1.

Groundwater is not used to irrigate greater than 5 acres of commercial food or forage crops, for watering of commercial livestock, commercial food preparation, as a supply for commercial aquaculture, or as a supply for a major or designated water recreation area. The site is located in a wellhead protection area (Ecology 2006).

7.1.3.1 Sample Locations

Eight groundwater samples (MN01GW01, MW01GW01, and DW01GW01 through DW06GW01) were collected from the Poulsbo Bus Barn well, the Poulsbo Monitoring well, the Accumar Corporation, and (b) (6) esidences, respectively (Figure 3-1).

7.1.3.2 Sample Results

The groundwater samples were analyzed for NDMA, perchlorate and UDMH. None of these contaminants were detected in any groundwater sample.

7.2 Surface Water Migration Pathway

The surface water migration pathway TDL begins at the probable point of entry (PPE) of surface water runoff from the site to a surface water body and extends downstream for 15 miles. Figure 7-2 depicts the surface water migration TDL.

7.2.1 Overland Route

The FNLS #81 is located on a plateau on the western flank of the Big Valley River at an elevation of approximately 300 feet above mean sea level (amsl). According to borehole logs, the upper 1.5 to 5 feet of surface soils consist of loose to dense silty sand (Harza 1994). The land surface at the site sloped to the south and southeast at the time of the SI in 1996 (E & E 1997). Johnson Creek is located approximately 800 feet southwest of the site. Liberty Bay, an inlet of Puget Sound, and the mouth of the Big Valley River are both located approximately one mile southeast of the site. An overland route from the site to this surface water body was not identified in the field. Runoff from the site discharges 100 feet from the site via storm drains to Pond 2, then another 800 feet to Johnson Creek, then to Liberty Bay approximately 4,100 feet southwest of the site. The remainder of the 15-mile surface water TDL exists as a 14.05-mile radial arc in Liberty Bay and Puget Sound.

Flood frequency information is not available for this area of Poulsbo, Washington (FEMA 1981). For the purposes of this SR, the FNLS #81 is assumed to be located outside of any floodplain. There is no containment at site sources to prevent a release from these areas to surface water. The two-year, 24-hour rainfall for Poulsbo is 2.5 inches (USDC 1973). The yearly average total precipitation for Bremerton (the nearest weather station located approximately 12 miles south of the site) is 51.73 inches (WRCC 2006). Soils at the site are likely to consist of loose to dense silty sands that exhibit a moderate to fast infiltration rate. The upgradient drainage area of the site is estimated from the site visit to be approximately 500 acres (E & E 2006a).

7.2.2 Drinking Water Targets

Because Liberty Bay and Puget Sound are salt water bodies, no domestic or irrigation surface water intakes are located within 15 miles downstream of the site.

Surface water is not used for irrigation of greater than 5 acres of commercial food or forage crops, for recreational boating, for watering of commercial livestock, commercial food preparation, as a supply for commercial aquaculture, or as a supply for a major or designated water recreation area (E & E 2006a).

7.2.3 Human Food Chain Targets

Commercial and sport fishing occur within the 15-mile TDL. The 15-mile TDL is within state designated sport catch statistical area 10, and approximately 10% of the statistical area is within the TDL. Approximately 26,448 salmon were caught for sport within 15 miles downstream of the site (WDF&W 2005); an average weight of 7 pounds per sport salmon was used (E & E 1997). Approximately 1,925,000 pounds of Chinook (an average weight of 22 pounds), 11,964,000 pounds of Chum (an average weight of 9 pounds), 13,461,000 pounds of Pink (an average weight of 4 pounds), 4,767,000 pounds of Coho (an average weight of 10 pounds), and 10,428,000 pounds of Sockeye (an average weight of 6 pounds) salmon per year are caught commercially from Puget Sound (based on a five year average ending in 1993; WDF&W 1993; Wydoski 2003). Further, approximately 6,207,000 pounds of other anadromous fish and salmon eggs were harvested commercially from Puget Sound annually for this period (WDF&W 1993). It is estimated that 5% of fish and salmon eggs harvested commercially from Puget Sound

are caught within 15 miles downstream of the site. Sport catch figures for species caught within 15 miles downstream of the site are provided in Table 7-2.

7.2.4 Environmental Targets

According to National Wetland Inventory maps, approximately 60 miles of wetlands exist within 15 miles downstream of the site (USFWS 1987a, USFWS 1987b, USFWS 1987c, USFWS 1987d, USFWS 1987e). It is estimated from National Wetland Inventory maps that 0.69 mile of wetland frontage exists along Johnson Creek downstream of FNLS #81. An additional 59.31 miles of wetland frontage exist in Puget Sound within the 15-mile TDL.

7.2.5 Sample Locations

One sediment sample (PD01SD01) was collected from 0 to 6 inches bgs from Pond 2 located immediately downgradient from the site (Figure 3-1).

One surface water sample (PD01SW01) was collected from the PPE to Pond 2 and one surface water sample (CR01SW01) was collected at the PPE to Pond 2 (Figure 3-1).

7.2.6 Sample Results

Sediment sample results are summarized in Table 7-3. Sediment sample PD01SD01 did not have elevated concentrations of any contaminants.

Surface water sample results are summarized in Table 7-4. Surface water sample PD01SW01 did not have elevated concentrations of any contaminants.

Table 7-1 Groundwater Drinking Water Population with a 4-Mile Radius

| Distance Ring (miles) | Well Identification | Well Population ^a | Total Population Per Distance Ring |
|-----------------------|--------------------------------------|------------------------------|------------------------------------|
| 0 to 0.25 | Domestic (0) | 0 | 0 |
| 0 10 0.25 | Municipal (0) | 0 | |
| 0.25 to 0.5 | Domestic (45) | 117 | 1,979.5 |
| 0.23 to 0.3 | Municipal – City of Poulsbo (1) | 1,862.5 | 1,979.3 |
| 0,5 to 1 | Domestic (143) | 371.8 | 457.8 |
| 0.5 to 1 | Municipal - Poulsbo Heights (2) | 86 | 457.0 |
| | Domestic (350) | 910 | |
| | Municipal – City of Poulsbo (2) | 3,725 | |
| 1 to 2 | Back Forty (2) | 42 | 5,071 |
| 1 to 2 | Pioneer Acres (1) | 30 | 3,071 |
| | Viewside Community Water (1) | 108 | |
| | Vinland View (2) | 256 | |
| | Domestic (573) | 1,489.8 | |
| | Municipal - City of Poulsbo (1) | 1,862.5 | |
| | Bela Vista (1) | 283 | |
| 2 to 3 | Gala Pines Water (1) | 180 | 3,956.3 |
| 2103 | Pioneer Hill West (1) | 45 | 5,550.5 |
| | Scandialand Mobile Home Park | 81 | |
| | (1) Sherman Hill (1) | 15 | |
| | Domestic (460) | 1,196 | |
| | Municipal - Edgewater Estates (3) | 1,186 | |
| | Naval Sub Base Bangor (5) | 15,843 | |
| 3 to 4 | Indian Hills Estates (1) | 110 | 18,464 |
| | Lincoln Hills Estates (1) | 31 | |
| | Lofall Water (1) | 42 | |
| | Rhododendron Mobile Home Park (1) | 56 | |
| otal | | | 29,928.6 |

Table 7-2 Fish Catch Data within the 15-Mile Target Distance Limit

| Fishing Type | Type of Catch | Number of Fish | Fish Weight in Pounds | Total Pounds |
|------------------------|-----------------------------|----------------|-----------------------|--------------|
| Sport | Salmon | 26,448 | 7 | 185,136 |
| Commercial | Chinook | 4,375 | 22 | 96,250 |
| | Chum | 66,467 | 9 | 598,200 |
| | Pink | 168,263 | 4 | 673,050 |
| | Coho | 23,835 | 10 | 238,350 |
| | Sockeye | 86,900 | 6 | 521,400 |
| | Other Anadromous | Not Applicable | Not Applicable | 310,350 |
| | Fish and Salmon Eggs | | | |
| Total | 2,622,736 | | | |
| 10% of the Total = the | ne amount caught within the | e 15-mile TDL | | 262,274 |

Table 7-3 Sediment Samples Analytical Results Summary

| iEPA:Sample ID | 06234056 | 06234054 |
|-------------------------------|------------------------------|----------|
| CLP Inorganic ID | | MJ73W0 |
| CLP Organic ID | J73W2 | J73W0 |
| Station Location | | PD01SD01 |
| Description | Pond 1 - Background | Pond 2 |
| Marker and the contraction of | hinds (now/so) and first the | |
| Aluminum | 20,400 | 8,650 |
| Arsenic | 1.6 | 1.1 U |
| Barium | 81.1 | 39.1 |
| Calcium | 4,820 | 4,590 |
| Chromium | 35.9 | 25.2 |
| Cobalt | 10.7 | 6.0 |
| Соррег | 26.8 JL | 10.0 JL |
| Iron | 21,900 | 13,500 |
| Lead | 2.4 | 0.72 JQ |
| Magnesium | 6,370 | 5,260 |
| Manganese | 303 JL | 206 JL |
| Nickel | 60.5 | 35.3 |
| Potassium | 970 | 581 |
| Vanadium | 49.3 | 35.6 |
| Zinc | 48.8 JL | 23.3 JL |
| Volucies Constant Cons | prover critical and the con- | |
| Acetone | 26 | 40 |
| 2-Butanone | 24 | 19 |

Note: Bold type indicates the sample result is above the sample quantitation/detection limit.

Key:

bgs = Below ground surface.

CLP = Contract Laboratory Program.

EPA = United States Environmental Protection Agency.

ID = Identification.

J = The analyte was positively identified. The result is estimated because the concentration is

below the sample quantitation limit.

L = Low bias.

μg/kg = Micrograms per kilogram. mg/kg = Milligrams per kilogram.

Q = The associated sample result is less than the Contract Required Quantitation Limit.

U = The analyte was not detected at or above the listed detection limit.

Table 7-4 Surface Water Samples Analytical Results Summary

| EPA Sample ID | 06234055 | 06234053 | 06234057 |
|--------------------|----------|----------|---------------|
| CLP Inorganic ID | MJ73W1 | MJ73T9 | MJ73W3 |
| CLP Organic ID | J73W1 | J73T9 | J73W3 |
| Station Location | PD02SW01 | PD018W01 | CR01SW01 |
| Description | Pond 1 | Pond 2 | Johnson Creek |
| Tal Alebes (reall) | | | |
| Aluminum | 614 JL | 174 U | 1,030 JL |
| Arsenic | 10.0 UJL | 10.0 UJL | 13.9 JL |
| Calcium | 6,390 JL | 5,100 JL | 5,160 JL |
| Iron . | 452 | 150 | 730 |
| Manganese | 24.6 | 23.6 | 58.8 |
| Sodium | 2,180 JQ | 2,580 JQ | 12,300 |

| Note: | Bold type indicates | the sample result is | above the sample | quantitation/detection limit. |
|-------|---------------------|----------------------|------------------|-------------------------------|
| | | | | |

Key:

CLP = Contract Laboratory Program.

EPA = United States Environmental Protection Agency.

ID = Identification.

J = The analyte was positively identified. The result is estimated because the concentration is

below the sample quantitation limit.

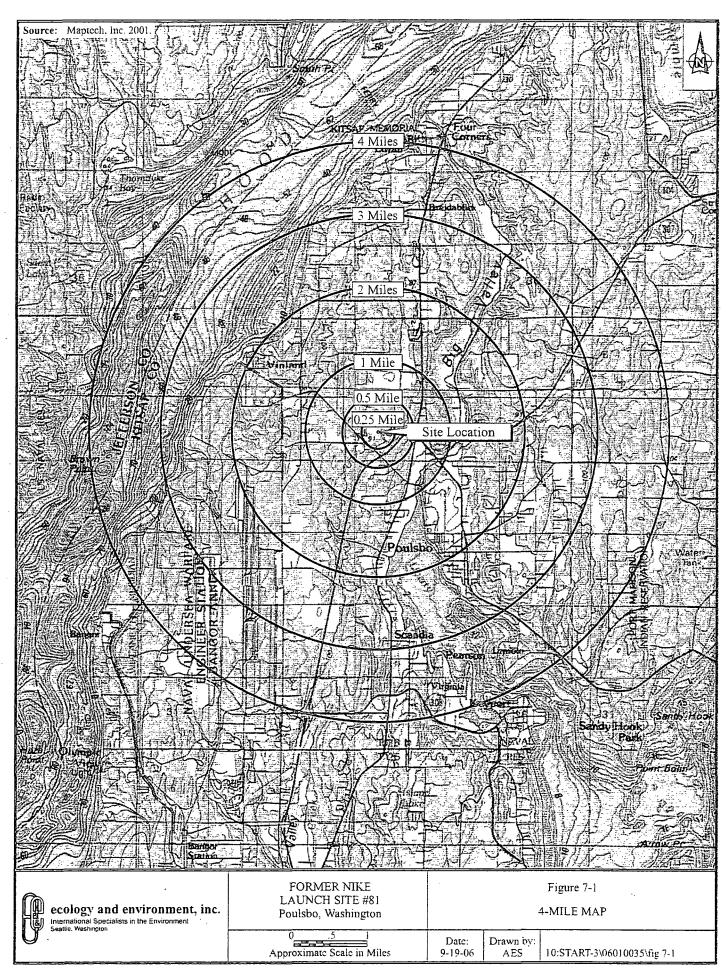
L = Low bias.

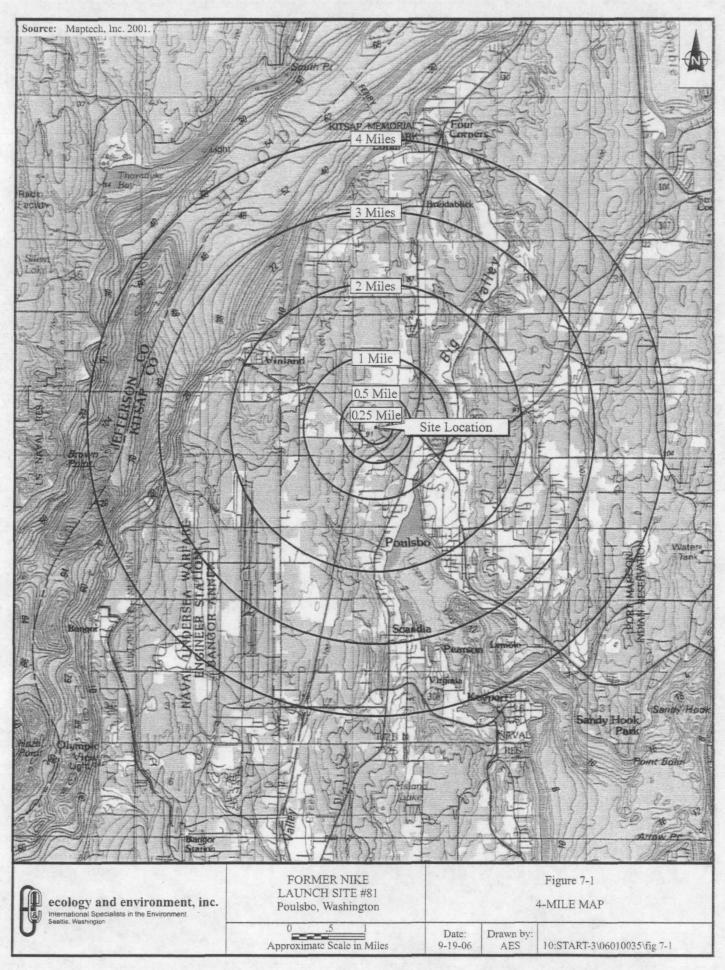
 μ g/L = Micrograms per liter.

Q = The associated sample result is less than the Contract Required Quantitation Limit.

TAL = Target Analyte List.

U = The analyte was not detected at or above the listed detection limit.





Note: This page is intentionally left blank.

Summary and Conclusions

In early June 2006, the START conducted SR sampling activities at the FNLS #81 site located in Poulsbo, Washington. The site is a former DoD missile launch facility located on property currently owned by Wal-Mart, Inc. The site operated as a Nike Missile Launch facility by the Army between 1955 and 1966. Disposal of the property occurred between 1966 and 1980, with 35.57 acres containing facility structures conveyed to in February 1967. In 1985, the USACE Seattle District conducted a survey of the site and determined that the site was essentially as the Army had left it in 1967, that all Nike-era structures on the property had been used by (b) (6) for various purposes, and because all site facilities had been used by the current property owner and the property owner did not express an interest in having remedial work done under DERP, no further action was required.

Previous field actions at the site involved the closure of four USTs and removal of fifteen cubic yards of contaminated soil, an asbestos abatement action, and the removal of four PCB transformers, water from the missile silos, and lead-based paint.

The SR involved the collection of samples from targets near the site. A total of 15 groundwater, sediments and/or surface water samples were collected for the SR and were analyzed for NDMA, pesticides, PCBs, perchlorate, SVOCs, TAL metals, UDMH and/or VOCs.

8.1 Sources

8

Six source areas were sampled during the 1996 SI, including the former acid fueling station, missile assembly building, maintenance shop, generator building, UST, and missile silo area. Because the site is currently paved, no source samples were collected during SR field activities.

8.2 Targets

Groundwater is used as a drinking water source for 29,928.6 people within 4 miles of the site. None of the groundwater samples had detections of NDMA, perchlorate or UDMH. None of the drinking water samples collected during the 1996 SI had elevated concentrations of contaminants.

Sediment sample PD01SD01 and surface water samples PD01SW01 and CR01SW01 did not have elevated concentrations of any contaminants. Positive results in these target samples are not attributable to the site as they were not also detected in source samples at significant concentrations.

8.3 Conclusions

Results of the SR indicate that FNLS #81 is not contributing to significant concentrations of hazardous substances relative to background concentrations in groundwater and sediments. None of the target samples had elevated concentrations of any contaminant.

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Α

SAMPLE PLAN ALTERATION FORM

Sample Plan Alteration Form

Project Name and TDD Number: Former Nike Launch Site #81 06-01-0035

Material to be Sampled: Sediment Surface Water QC Sample Groundwater

Measurement Parameter: N-nitrosodimethylamine (NDMA), perchlorate, unsymmetrical dimethylhydrazine (UDMH), volatile organic compounds (VOCs), semivolatile organic compounds (SVOC), chlorinated pesticides (pesticides), polychlorinated biphenyls (PCBs), target analyte list (TAL) metals

Standard Procedure for Field Collection and Laboratory Analysis (cite reference): Sediments, surface water, QC samples, and groundwater samples were collected following Ecology and Environment, Inc., Standard Operating Procedures

Reason for Change in Field Procedure or Analysis Variation: Sediment, surface water, and a trip blank QC sample were added to determine if the surface water pathway was a contamination pathway from the Former Nike Launch Site #81.

Variation from Field or Analytical Procedure: The two sediment samples were analyzed for all parameters listed above. The trip blank was analyzed for VOCs. The three surface water samples were analyzed for all parameters listed above. A rinsate blank sample was not collected as listed in the SQAP as all sampling equipment was dedicated. Two groundwater samples were not collected as listed in the SQAP as property owners denied access to their wells.

Special Equipment, Materials, or Personnel Required: Additional sampling jars (EnCoretype samplers, 8 ounce glass jars, 1-liter polyethylene bottles, 32-ounce amber glass jars, and 40-milliliter glass vials) and preservatives (hydrochloric acid and nitric acid).

| Initiator's Name: | Date: |
|-------------------|-------|
| Project Manager: | Date: |
| QA Officer: | Date: |

В

PHOTOGRAPHIC DOCUMENTATION

PHOTOGRAPH IDENTIFICATION SHEET

CAMERA SERIAL NUMBER: NA

TDD #: 06-01-0035

LENS TYPE: 35 MM

SITE NAME: FORMER NIKE LAUNCH SITE #81

| Photo # | Direction | Date | Time | Ву | Description |
|---------|-----------|--------------|------|----|----------------------------------|
| 1-1 | South | June 6, 2006 | 0855 | MW | Westside well sample. |
| 1-2 | North | June 6, 2006 | 1000 | MW | (b) (6) |
| 1-3 | Down | June 6, 2006 | 1000 | MW | |
| 1-4 | Down | June 6, 2006 | 1030 | MW | |
| 1-5 | Down | June 6, 2006 | 1040 | MW | |
| 1-6 | Down | June 6, 2006 | 1050 | MW | Wal-Mart well. |
| 1-7 | Down | June 6, 2006 | 1130 | MW | Accumar Corp. sample collection. |
| 1-8 | Down | June 6, 2006 | 1300 | MW | (b) (6) |
| 1-9 | North | June 6, 2006 | 1330 | MW | |
| 1-10 | Down | June 6, 2006 | 1450 | MW | Johnson Creek sample location. |
| 1-11 | Down | June 6, 2006 | 1520 | MW | Pond #2 sample location. |
| 1-12 | Down | June 6, 2006 | 1520 | MW | Pond #1 sample location. |

Key:

MW = Mark Woodke.



Photo 1-1



Photo 1-3



Photo 1-2



Photo 1-4



Photo 1-5



Photo 1-7



Photo 1-6



Photo 1-8



Photo 1-9



Photo 1-11



Photo 1-10



Photo 1-12

C

DATA VALIDATION MEMORANDA



ecology and environment, inc.

International Specialists in the Environment

720 Third Avenue, Suite 1700, Seattle, WA 98104 Tel: (206) 624-9537, Fax: (206) 621-9832

MEMORANDUM

DATE:

August 30, 2006

FROM:

Mark Woodke, START-3 Chemist, E & E, Seattle, Washington MW

SUBJ:

Organic Data Summary Check, Former Nike Launch Site #81 Site,

Poulsbo, Washington

REF:

TDD: 06-01-0035

PAN: 002233.0051.01SR

The data quality assurance review of 3 water and 2 soil samples collected from the Former Nike Launch Site #81 site in Poulsbo, Washington, has been completed. Volatile Organic Compounds (VOCs), Semivolatile Organic Compounds (SVOCs), Chlorinated Pesticides (Pesticides) and Polychlorinated Biphenyls (PCBs) analyses (EPA CLP SOW SOM01.1) were performed by Datachem Laboratories, Inc., Utah.

The samples were numbered:

J73T9

J73W0

J73W2

J73W3

J73W7

No discrepancies were noted.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION 10

1200 Sixth Avenue Seattle, WA 98101

August 28, 2006

MEMORANDUM

SUBJECT: Data validation report for the volatile organic compounds (VOCs), semi-volatile organic

compounds (SVOCs), pesticides (PEST), and PCB Aroclors (PCB) analysis of samples from the

Former Nike Launch Site #81 Case: 35417 SDG: J73T9

FROM:

Brandon Perkins, QA Chemist

Office of Environmental Assessment

TO:

Ken Marcy, Site Assessment Manager

Office of Environmental Cleanup

CC:

Mark Woodke

Ecology and Environment

The quality assurance (QA) review of 3 water and 2 soil samples collected from the above referenced site has been completed. The samples were analyzed for VOCs, SVOCs, Pesticides, and PCB Aroclors in accordance with the USEPA Contract Laboratory Program (CLP) Statement of Work (SOW) for Multi-Concentration Organic Analysis (SOM01.1). The analysis was performed by Datachem Laboratories of Salt Lake City, UT. The following samples were reviewed in this validation report:

SDG: J73T9

J73T9

J73W0

J73W2

J73W3

J73W7

DATA QUALIFICATIONS

The following comments refer to the laboratory performance in meeting the Quality Control (QC) Specifications outlined in the USEPA CLP SOW for Multi Concentration Organic Analysis (SOM01.1) and the USEPA CLP National Functional Guidelines for Organic Data Review (1/2005).

The conclusions presented herein are based on the information provided for the review.

Holding Time -

All of the samples met the technical holding time criteria for VOCs, SVOCs, pesticide, and PCB Aroclors analysis. The samples were collected on 6/6/06, VOCs analysis occurred on 6/13/06 - 6/14/06, SVOCs, Pest, and PCB extraction occurred on 6/13/06 & 6/15/06; SVOCs analysis occurred on 6/19/06 - 6/21/06, PEST analysis occurred on 6/26/06, and PCB analysis occurred on 6/21/06. SVOC samples were re-extracted and reanalyzed on 6/26/06, outside of holding time due to spiking of incorrect surrogates. None of the data was qualified on this basis.



Instrument Performance Checks - Acceptable

The GC/MS systems used for VOCs and SVOCs analysis met the performance checks and ion abundance criteria. All of the samples were analyzed within an acceptable 12-hour QC period and the instruments used remained stable throughout the course of analyses. None of the data were qualified on this basis.

The GC system used in the Pest analysis met the performance checks, resolution checks, and percent endrin and 4,4'-DDT breakdown criteria. All of the samples were analyzed within an acceptable 12-hour QC period and the instrument used remained stable throughout the course of analysis. None of the data was qualified on this basis.

Initial Calibrations (ICAL) -

The ICAL curves for VOCs and SVOCs analysis met the technical acceptance criteria set forth by the SOW for the percent relative standard deviations (%RSDs), chromatographic resolutions, retention times, and minimum response factors (RRFs) for all target compounds and surrogates with the following exceptions:

- <u>VOC ICAL 5/23/06 instr. 5972-P</u> The mean RRF of 1,4-Dioxane (0.0013) exceeded the control limit of 0.010. This compound was not detected and therefore was qualified unusable "R".
- <u>VOC ICAL 5/11/06 instr. 5972-S</u> The mean RRF of 1,4-Dioxane (0.0025) exceeded the control limit of 0.010. This compound was not detected and therefore was qualified unusable "R".

The ICAL curves for Pest analysis met the frequency of analysis and other technical acceptance criteria set forth by the SOW for the percent relative standard deviations (%RSDs), retention times, and calibration factors (CFs) for all target compounds and surrogates.

The initial calibration curves for PCBs analysis met the frequency of analysis and other technical acceptance criteria set forth by the SOW for the percent relative standard deviations (%RSDs), retention times, and calibration factors (CFs) for all target compounds and surrogates.

Continuing Calibration Verification (CCV)

All of the GC/MS CCVs for VOCs and SVOCs analysis met the criteria for frequency of analysis, and the technical acceptance criteria (minimum response factors (RFs) and percent differences (%Ds)) with the following exceptions:

| Date/Time of Analysis | Compound | %D (25% limit) | Qualifier Detect/Non- detect | Associated Samples |
|--------------------------------|-----------------------------------------------------------|----------------------|------------------------------------|------------------------------|
| 6/26/06 13:20 instr. 5972-R | Hexachlorocyclopentadiene 4-Nitrophenol Pentachlorophenol | 26.9 27.2 37.4 | J/None J/None J/None | J73T9RX, J73W1RX, J73W3RX |

All of the GC CCVs for Pest analysis met the criteria for frequency of analysis, retention times, and percent differences (%Ds) of the technical acceptance criteria. None of the data was qualified on this basis.

All of the GC CCVs for PCBs analysis met the criteria for frequency of analysis, retention times, and percent differences (%Ds) of the technical acceptance criteria. None of the data was qualified on this basis.

Quantitation Limits - Acceptable

The samples were analyzed at the contract required quantitation limits (CRQL). The CRQLs were based on the lowest standard concentration analyzed in the initial calibrations. Target compounds that were detected at concentrations less than the QLs were qualified as estimated, "J". Detected compounds at concentrations over the calibration range were analyzed by the laboratory at a dilution. Trace levels of common laboratory contaminants detected in the samples at concentrations less than CRQLs were qualified by the reviewer as non-detect, "U" and reported at the CRQL. All of the reported results were adjusted for sample amounts analyzed. When applicable, all of the "E" and "D" qualifiers applied by the laboratory were crossed-out by the reviewer.

It is recommended that data users should utilize the results/analytical run selected by the reviewer where more than one analysis was performed on a single extract (i.e., dilution, re-analysis).

Blanks - Acceptable

All method and/or instrument blanks analyzed for VOCs, SVOCs, Pest, and PCBs were acceptable with the following exceptions

- Trace levels of methylene chloride was detected in the one of the method blanks. This compound is a common laboratory contaminant. Therefore detected methylene chloride at concentrations less than 10x the blank value, within samples associated with this blanks, were qualified as non-detects, "U".
- Trace levels of toluene was detected in the full scan method blank. Detected toluene concentrations less than 5x the blank values, within samples associated with this blank was qualified as non-detects, "U".
- Trace levels of bis(2-ethylhexyl)phthalate, butylbenzylphthalate, and di-n-butylphthalate were detected in one of the method blanks. These compounds are common laboratory contaminants. Therefore detected bis(2-ethylhexyl)phthalate, butylbenzylphthalate, and di-n-butylphthalate at concentrations less than 10x the blank value, within samples associated with this blank, were qualified as non-detects, "U".
- Trace levels of acetphenone was detected in one of the method blanks. Detected acetphenone at concentrations less than 5x the blank values, within samples associated with this blank was qualified as non-detects, "U".
- Trace levels of methoxychlor was detected in one of the method blanks. Detected methoxychlor at concentrations less than 5x the blank values, within samples associated with this blank was qualified as non-detects, "U".

Analytical Sequence - Acceptable

All of the standards, blanks, samples, and QC samples were analyzed in accordance with the SOW specified analytical sequence. None of the data was qualified on this basis.

Surrogates

Fourteen VOCs, Eighteen SVOCs and two Pest/PCB surrogates were spiked in all the samples and QC samples to evaluate laboratory performance. The surrogates and their corresponding recovery acceptance limits are:

| to evaluate laboratory per formance. | The surrogates at | id their corresponding recovery acceptance | mints arc. |
|--------------------------------------|------------------------|--------------------------------------------|------------------------|
| DMCs | Recovery Limits (%) | DMCs | Recovery Limits (%) |
| Vinyl Chloride-d3 (VCL) | 65-131 | 1,2-Dichloropropane-d6 (DPA) | 79-124 |
| Chloroethane-d5 (CLA) | 71-131 | Toluene-d8 (TOL) | 77-121 |
| 1,1-Dichloroethene-d2 (DCE) | 55-104 | Trans-1,3-Dichloropropene-d4 (TDP) | 73-121 |
| 2-Butanone-d5 (BUT) | 49-155 | 2-Hexanone-d5 (HEX) | 28-135 |
| Chloroform-d (CLF) | 78-121 | 1,4-Dioxane-d8 (DXE) | • 50-150 |
| 1,2-Dichloroethane-d4 (DCA) | 78-129 | 1,1,2,2-Tetrachloroethane-d2 (TCA) | 73-125 |
| Benzene-d6 (BEN) | 77-124 | 1,2-Dichlorobenzene (DCZ) | 80-131 |
| Phenol-d5 (PHL) | 17-103 | Dimethylphthalate-d6 (DMP) | 43-111 |
| Bis-(2-chloroethyl)ether-d8 (BCE) | 12-98 | Acenapthylene-d8 (ACY) | 20-97 |
| 2-Chlorphenol-d4 (2CP) | 13-101 | 4-Nitrophenol-d4 (4NP) | 16-166 |
| 4-Methylphenol-d8 (4MP) | 8-100 | Fluorene-d10 (FLR) | 40-108 |
| Nitrobenzene-d5 (NBZ) | 16-103 | 4,6-Dinitro-2-methylphenol-d2 (NMP) | 1-121 |
| 2-Nitrophenol-d4 (2NP) | 16-104 | Anthracene-d10 (ANC) | 22-98 |
| 2,4-Dichlorophenol-d3 (DCP) | 23-104 | Pyrene-d10 (PYR) | 51-120 |
| 4-Chloroaniline-d4 (4CA) | 1-145 | Benzo(a)pyrene-d12 (BAP) | 43-111 |
| Fluoranthene-d10 (SIM) (FLN) | 50-150 | 2-Methylnaphthalene-d10 (SIM) (2MN) | 50-150 |
| Tetrachloro-m-xylene (TCX) | 30-150 | Decachlorobiphenyl (DCB) | 30-150 |

All of the surrogate recoveries met the applicable recovery criteria with the following exceptions:

| Sample | DMC | Recovery (%) | Qualification Detects/Non- detects | Associated compounds |
|--------|-----|--------------|------------------------------------------|----------------------|
| J73T9 | DXE | 180 | J/None | 1,4-Dioxane |
| J73W3 | DXE | 112 | J/None | 1,4-Dioxane |
| J73W7 | DXE | 106 | J/None | 1,4-Dioxane |

| J73T9 | NBZ | 125 | J/None | Acteophenone, N-nitroso-di-n- propylamine, Hexachloroethane, Nitrobenzene, 2,6-Dinitrotoluene, 2,4- Dinitrotoluene, N-Nitrosodiphenylamine |
|-------|-------|-----|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| J73W1 | PHL | 131 | J/None | Benzaldehyde, Phenol |
| | NBZ | 151 | J/None | Acteophenone, N-nitroso-di-n- propylamine, Hexachloroethane, Nitrobenzene, 2,6-Dinitrotoluene, 2,4- Dinitrotoluene, N-Nitrosodiphenylamine |
| J73W3 | PHL | 133 | J/None | Benzaldehyde, Phenol |
| | . NBZ | 134 | J/None | Acteophenone, N-nitroso-di-n-propylamine, Hexachloroethane, Nitrobenzene, 2,6-Dinitrotoluene, 2,4-Dinitrotoluene, N-Nitrosodiphenylamine |

Due to laboratory error SVOC surrogates were spiked incorrectly for samples J73T9, J73W1, and J73W3. The spiking solution only contained the surrogates NBZ and PHL which accounts for zero percent recovery of other surrogates. The laboratory re-extracted the affected samples with the corrected surrogates and all of the surrogates were recovered within limits. None of the data was qualified on this basis.

Matrix Spike/Matrix Spike Duplicate (MS/MSD) -

Sample J73W3 was designated for MS/MSD analysis. The MS/MSD analysis met the advisory technical acceptance criteria for percent recovery (%R) and relative percent difference (RPD) with the following exceptions:

| Compound (Re-extract) | MS %R | MSD %R Control Limits | | RPD | Control Limits |
|-----------------------|-------|-------------------------|-------|-----|----------------|
| 4-Nitrophenol | 122* | 98* | 10-80 | 22 | 50 |
| 2,4-Dinitrophenol | 106* | 76 | 24-96 | 33 | 38 |
| Pentachlorophenol | 123* | 96 | 9-103 | 25 | 50 |

^{*}outside of control limits

None of the data was qualified on this basis.

| Compound | MS %R | MS %R | MSD %R | MSD %R | Control | RPD | RPD | Control |
|------------|------------|------------|------------|------------|---------|------------|------------|---------|
| | (Column 1) | (Column 2) | (Column 1) | (Column 2) | Limits | (Column 1) | (Column 2) | Limits |
| Gamma-BHC | .86 | 90 | 67 | 66 | 56-123 | 25* | 30* | 15 |
| Heptachlor | 93 | 96 | 74 | 75 | 40-131 | 22* | 24* | 20 |
| Aldrin | 93 | 98 | 74 | 75 | 40-120 | 23* | 26* | 22 |
| Dieldrin | 99 | 103 | 76 | 77 | 52-126 | 26* | 29* | 18 |
| Endrin | 102 | 112 | 78 | 83 | 56-121 | 27* | 29* | 21 |
| 4,4'-DDT | 102 | 106 | 74 | 77 | 38-127 | 30* | 31* | 27 |

^{*}outside of control limits

None of the data was qualified on this basis.

Laboratory Control Sample (LCS) - Acceptable

The LCS analysis met the advisory technical acceptance criteria for percent recovery (%R). None of the data was qualified on this basis.

Internal Standards -

The acceptance criteria for internal standards (IS) are ±30 seconds for retention time (RT) shifts and -50% to +200% of the IS area as compared to the IS RT and area of the daily continuing calibration standard. The internal standards are:

| 1,4-Difluorobenzene (DFB) | Chlorobenzene-d5 (CBZ) | | |
|------------------------------|------------------------|--|--|
| 1,4-Dichlorobenzene-d4 (DCB) | Naphthalene-d8 (NPT) | | |
| Acenaphthene-d10 (ANT) | Phenanthrene-d10 (PHN) | | |
| Chrysene-d12 (CRY) | Perylene-d12 (PRY) | | |

All of the results met the IS area and RT shift criteria. None of the data was qualified on this basis.

Florisil Cartridge Check - Acceptable

The frequency of analysis and recovery criteria of florisil used during pests/PCB clean-up were met. None of the data were qualified on this basis.

Gel Permeation Chromatography (GPC) Check - Acceptable

The frequency of analysis and recovery criteria of GPC used during pests/PCB clean-up was met. None of the data was qualified on this basis.

Compound Identification

All of the compounds detected in the GC/MS analyses were within the retention time windows, met the USEPA spectral matching criteria and were judged to be acceptable except for the following situation: Detected compounds with results below the CRQL and that had weak spectra were qualified as non-detected and reported at the CRQL level by the reviewer.

Pesticide and PCB Aroclors were calculated for both primary (CLP-Pest I) and confirmatory (CLP-Pest II) columns. The reviewer used professional judgement during the final identification and qualification of the single component pesticides and Aroclors. Detected pesticides and Aroclors with %Ds >30% but <60% between the two column concentrations were qualified estimated, "J". The lower of the two concentrations were reported on the Form Is. Detected pesticides and Aroclors at concentration <CRQLs with %Ds >60% between two columns were qualified non-detects, "U" with the reporting limits elevated to the CRQL level.

Tentatively Identified Compounds

Peaks that were detected in the samples at areas >10% of the internal standards and were not part of the target compound lists were identified as tentatively identified compounds (TICs). TICs that were both found in the sample and in the associated method blank(s) were crossed-out by the reviewer Peaks that were identified as common laboratory contaminants, solvent preservatives, column bleed or aldol condensation products were also

crossed-out by the reviewer and qualified as unusable, "R". The rest of the peaks identified as TICs were qualified "JN", tentatively identified at the estimated concentration.

Laboratory Contact

The laboratory was contacted and asked to resubmit forms with discrepancies.

Overall Assessment

The total number of data points was 745. Less than 1% of the total data points were qualified non-detect due to VOCs mass spectra which did not meet spectra matching criteria. Less than 1% of the total data points were qualified non-detects due to VOCs blank contamination. Less than 1% of the total data points were qualified unusable due to exceedances in VOC calibration criteria. 1% of the total data points were qualified non-detects due to SVOCs blank contamination. Less than 1% of the total data points were qualified non-detects due to exceedances in Pest primary and confirmatory column concentrations. Less than 1% of the total data points were qualified non-detects due to Pest blank contamination.

All of the samples were analyzed in accordance with technical specifications outlined in the SOW. The data, as qualified, are acceptable and can be used for all purposes.

| | | Data Qualifiers |
|------------|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | U | The analyte was not detected at or above the reported result. |
| | J | The analyte was positively identified. The associated numerical result is an estimate. |
| | UJ | The analyte was not detected at or above the reported estimated result. The associated numerical value is an estimate of the quantitation limit of the analyte in this sample. |
| Ī | R | The data are unusable for all purposes. |
| | N | There is evidence the analyte is present in this sample. |
| | JN | There is evidence that the analyte is present. The associated numerical result is an estimate. |
| Bias | L | Low bias |
| Qualifiers | Н | High bias. |
| | Q | The result is estimated because the concentration is below the Contract Required Quantitation Limits (CRQLs). |
| Ī | K | Unknown Bias |
| | | • |
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1A - FORM I VOA-1 VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

| Lab Name: DataChem Laboratories, Inc. Contract: EP-W-05-026 | | | | |
|-------------------------------------------------------------|-----------------|---------|----------------------------------|------|
| Lab Code: DATAC | Case No.: 35417 | Mod. Re | ef No.: SDG No.: <u>J73T9</u> | |
| Matrix: (SOIL/SED/WA | FER) WATER | | Lab Sample ID: <u>06C02709</u> | |
| Sample wt/vol: 5.00 | (g/mL) mL | | Lab File ID: PD87C709 | |
| Level: (TRACE/LOW/ME | D) LOW | | Date Received: <u>06/08/2006</u> | |
| % Moisture: not dec. | | | Date Analyzed: 06/13/2006 | |
| GC Column: DB624 | ID: 0.53 | (mm) | Dilution Factor: 1.0 | |
| Soil Extract Volume: | | (uL) | Soil Aliquot Volume: | (uL) |
| Purae Volume: 5 0 | | (m) \ | | |

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/kg) ug/L | Q |
|------------------|---------------------------------------|-------------------------------------------|----|
| 75-71-8 | Dichlorodifluoromethane | 5.0 | Ū |
| 74-87-3 | Chloromethane | 5.0 | Ū |
| 75-01-4 | Vinyl chloride | 5.0 | Ü |
| 74-83-9 | Bromomethane | . 5.0 | Ü |
| 75-00-3 | Chloroethane | 5.0 | Ü |
| 75-69-4 | Trichlorofluoromethane | 5.0 | Ū |
| 75-35-4 | 1,1-Dichloroethene | 5.0 | Ü |
| 76-13-1 | 1,1,2-Trichloro-1,2,2-trifluoroethane | 5.0 | Ü |
| 67-64-1 | Acetone | . 10 | Ū |
| 75-15 - 0 | Carbon disulfide | 5.0 | U |
| 79-20-9 | Methyl acetate | 5.0 | U |
| 75-09-2 | Methylene chloride | 5.0 | Ū |
| 156-60-5 | trans-1,2-Dichloroethene | 5.0 | U |
| 1634-04-4 | Methyl tert-butyl ether | 5.0 | Ū |
| 75-34-3 | 1,1-Dichloroethane | 5.0 | Ü |
| 156-59-2 | cis-1,2-Dichloroethene | 5.0 | U |
| 78-93-3 | 2-Butanone | 10 | U |
| 74-97-5 | Bromochloromethane | 5.0 | Ū |
| 67-66-3 | Chloroform | 5.0 | Ü |
| 71-55-6 | 1,1,1-Trichloroethane | 5.0 | Ū |
| 110-82-7 | Cyclonexane | 5.0 | Ū |
| 56-23-5 | . Carbon tetrachloride | 5.0 | Ü |
| 71-43-2 | Benzene | 5.0 | Ū |
| 107-06-2 | 1,2-Dichloroethane | 5.0 | Ū |
| 123-91-1 | 1,4-Dioxane | 100 | XR |

B = 2000 mm

SOM01.1 (5/288)

1B - FORM I VOA-2 VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

| Lab Name: <u>DataChem Laboratories</u> , Inc. | | Contract: EP-W-05-026 |
|-----------------------------------------------|---------|----------------------------|
| Lab Code: DATAC Case No.: 35417 M | od. Ref | No.: SDG No.: <u>J73T9</u> |
| Matrix: (SOIL/SED/WATER) WATER | | Lab Sample ID: 06C02709 |
| Sample wt/vol: 5.00 (g/mL) mL | | Lab File ID: PD87C709 |
| Level: (TRACE/LOW/MED) LOW | | Date Received: 06/08/2006 |
| % Moisture: not dec. | | Date Analyzed: 06/13/2006 |
| GC Column: DB624 ID: 0.53 | (mm) | Dilution Factor: 1.0 |
| Soil Extract Volume: | (uL) | Soil Aliquot Volume:(ul) |
| Purge Volume: 5.0 | (mL) | |

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/kg) ug/L | Q |
|-------------|-----------------------------|-------------------------------------------|------|
| 79-01-6 | Trichloroethene | 5.0 | Ü |
| 108-87-2 | Methylcyclohexane | 5.0 | |
| 78-87-5 | 1,2-Dichloropropane | 5.0 | |
| 75-27-4 | Bromodichloromethane | 5.0 | Ü |
| 10061-01-5 | cis-1,3-Dichloropropene | 5.0 | Ü |
| 108-10-1 | 4-Methyl-2-Pentanone | 10 | U ,, |
| 108-88-3 | Toluene | 5.0 | Ü |
| 10061-02-6 | trans-1,3-Dichloropropene | 5.0 | Ū |
| 79-00-5 | 1,1,2-Trichloroethane | 5.0 | Ū |
| 127-18-4 | Tetrachloroethene | . 5.0 | Ū |
| 591-78-6 | 2-Hexanone | 10 | ΰ |
| 124-48-1 | Dibromochloromethane | 5.0 | Ū |
| 106-93-4 | 1,2-Dibromoethane | 5.0 | Ū |
| 108-90-7 | Chlorobenzene | 5.0 | Ū |
| 100-41-4 | Ethylbenzene | 5.0 | Ü |
| 95-47-6 | o-Xylene | 5.0 | Ū |
| 179601-23-1 | m,p-Xylene | 5.0 | ΰ |
| 100-42-5 | Styrene | 5.0 | Ü |
| 75-25-2 | Bromoform | 5.0 | Ü |
| 98-32-8 | Isopropylbenzene | 5.0 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 5.0 | Ū |
| 541-73-1 | 1,3-Dichlorobenzene | 5.0 | Ü |
| 106-46-7 | 1,4-Dichlorobenzene | 5.0 | Ü |
| 95-50-1 | 1,2-Dichlorobenzene | 5.0 | υ |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | 5.0 | Ü |
| 120-82-1 | 1,2,4-Trichlorobenzene | 5.0 | Ü |
| 87-61-6 | 1,2,3-Trichlorobenzene | 5.0 | Ū |

BP 5/20/20

SOM01.1 (5/2039)

1J - FORM I VOA-TIC VOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO. J73T9

| | | | | | <u> </u> | | |
|----------|--------------------------------------|------------------------------------------------|------------|----------------|---------------------------------------|-------------|---|
| | Lab Name: DataChem Laboratories, Inc | <u>, </u> | Contrac | t: <u>EP-W</u> | -05-026 | | |
| | Lab Code: DATAC Case No.: 35417 | | | | | | |
| | Matrix: (SOIL/SED/WATER) WATER | | Lab Sam | ple ID: | 06C02709 | | |
| | Sample wt/vol: 5.00 (g/mL) mL | | | | D87C709 | | |
| | Level: (TRACE/LOW/MED) LOW | | | | 06/08/2006 | | |
| | % Moisture: not dec. | | | | | | |
| | GC Column: DB624 ID: 0.53 | | | | | | |
| | Soil Extract Volume: | • | | | | | |
| | CONCENTRATION UNITS: (ug/L or ug/kg) | | | | | | |
| | | | | | | | |
| 01 | CAS NUMBER COMPOUND | O NAME | | RT | EST. CONC | · | Ω |
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¹EPA-designated Registry Number.

Total Alkanes

E966796¹

N/A

1A - FORM I VOA-1 VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

| J73W0 | |
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| Lab Name: DataChem Laboratories, Inc. | Contract: EP-W-05-026 |
|---------------------------------------|-------------------------------------|
| Lab Code: DATAC Case No.: 35417 M | Mod. Ref No.: SDG No.: <u>J73T9</u> |
| Matrix: (SOIL/SED/WATER) SOIL | Lab Sample ID: 06C02710 |
| Sample wt/vol: 5.87 (g/mL) g | Lab File ID: <u>SE31C710</u> |
| Level: (TRACE/LOW/MED) LOW | Date Received: 06/08/2006 |
| % Moisture: not dec. 14 | Date Analyzed: <u>06/14/2006</u> |
| GC Column: DB624 ID: 0.53 | (mm) Dilution Factor: 1.0 |
| Soil Extract Volume: | (uL) Soil Aliquot Volume:(uL) |
| Purge Volume: 10.0 | (mL) |

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg |
|---------|-------------------------|--------------------------------------------|
| 75-71-8 | Dichlorodifluoromethane | 5.0 |
| 74-87-3 | Chloromethane | 5.0 |
| 75-01-4 | Vinyl chloride | 5.0 |
| 74-83-9 | Bromomethane | 5.0 |
| 75-00-3 | Chloroethane | 5.0 |
| 75-69-4 | Trichlorofluoromethane | 5.0 |
| 75-35-4 | 1,1-Dichloroethene | 5.0 |

| 75-35-4 | 1,1-Dichloroethene | 5.0 | U " |
|-----------|---------------------------------------|----------------------|------|
| 76-13-1 | 1,1,2-Trichloro-1,2,2-trifluoroethane | 5.0 | י ט |
| 67-64-1 | Acetone | 4 0 | |
| 75-15-0 | Carbon disulfide | 5.0 -0.54 | ZU |
| 79-20-9 | Methyl acetate | 5.0 | Ū |
| 75-09-2 | Methylene chloride | 5.0 9.3 7 | IN U |
| 156-60-5 | trans-1,2-Dichloroethene | 5.0 | Ū |
| 1634-04-4 | Methyl tert-butyl ether | 5.0 | Ü |
| 75-34-3 | 1,1-Dichloroethane | 5.0 | Ü |
| 156-59-2 | cis-1,2-Dichloroethene | 5.0 | Ü |
| 78-93-3 | 2-Butanone | 19 | |
| 74-97-5 | Bromochloromethane | 5.0 | Ü |
| 67-66-3 | Chloroform | 5.0 | Ū |
| | | | |

71-55-6

110-82-7

56-23-5

71-43-2

107-06-2

123-91-1

1,1,1-Trichloroethane

Carbon tetrachloride

1,2-Dichloroethane

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Benzene

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SOM01.1 (5/20**46**)

1B - FORM I VOA-2 VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

| Lab Name: DataChem La | poratories, Inc. | | Contract: EP-W-05-026 | | | |
|-----------------------|------------------|----------|-----------------------|-----------------------|--------|--|
| Lab Code: DATAC | Case No.: 35417 | Mod. Ref | No.: | SDG No.: <u>J73T9</u> | | |
| Matrix: (SOIL/SED/WAT | ER) <u>SOIL</u> | | Lab Sample ID: | 06C02710 | | |
| Sample wt/vol: 5.87 | (g/ml) <u>g</u> | | Lab File ID: SE | 31C710 | | |
| Level: (TRACE/LOW/MED |) LOW | | Date Received: | 06/08/2006 | | |
| % Moisture: not dec. | 14 | | Date Analyzed: | 06/14/2006 | | |
| GC 'Column: DB624 | ID: 0.53 | (mm) | Dilution Factor | r: <u>1.0</u> | | |
| Soil Extract Volume: | | (uL) | Soil Aliquot Vo | olume: | _ (uL) | |
| Purge Volume: 10.0 | | (mL) | | | | |

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg | Q |
|-------------|-----------------------------|--------------------------------------------|-----|
| 79-01-6 | Trichloroethene | 5.0 | Ţij |
| 108-87-2 | Methylcyclohexane | 5.0 | Ū |
| | <u> </u> | | U |
| 7,8-87-5 | 1,2-Dichloropropane | | |
| 75-27-4 | Bromodichloromethane | 5.0 | Ū |
| 10061-01-5 | cis-1,3-Dichloropropene | 5.0 | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 10 | U |
| 108-88-3 | Toluene | 1.2 | JQ |
| 10061-02-6 | trans-1,3-Dichloropropene | 5.0 | U |
| 79-00-5 | 1,1,2-Trichloroethane | 5.0 | υ |
| 127-18-4 | Tetrachloroethene | 5.0 | Ū |
| 591-78-6 | 2-Hexanone | 10 | Ū |
| 124-48-1 | Dibromochloromethane | 5.0 | Ü |
| 106-93-4 | 1,2-Dibromoethane | 5.0 | Ü |
| 108-90-7 | Chlorobenzene | . 5.0 | Ü |
| 100-41-4 | Ethylbenzene | 5.0 -02 | ZU |
| 95-47-6 | o-Xylene | 5.0 | υ |
| 179601-23-1 | m,p-Xylene | <u>, 5.0</u> 0.39 | BU |
| 100-42-5 | Styrene | 5.0 | Ū |
| 75-25-2 | Bromoform | 5.0 | ט |
| 98-82-8 | Isopropylbenzene | 5.0 -2.25 | ZU |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 5.0 | U |
| 541-73-1 | 1,3-Dichlorobenzene | 5.0 | Ü |
| 106-46-7 | 1,4-Dichlorobenzene | 5.0 | U |
| 95-50-1 | 1,2-Dichlorobenzene | 5.0 | Ü |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | 5.0 | ΰ |
| 120-82-1 | 1,2,4-Trichlorobenzene | 5.0 | Ü |
| 87-61-6 | 1,2,3-Trichlorobenzene | 5.0 | υ , |

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SOMO1.1 (5/2047)

1J - FORM I VOA-TIC VOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

J73W0

| | _ | Chem Laboratories, Inc. | | | | | |
|----------|----------------------|------------------------------|--------------|----------------------------------------|-----------------|-----------------------------------------|--------------------------------------------------|
| | - | AC Case No.: 35417 1 | | No.: _ | | SDG No.: <u>J73T9</u> | |
| | Matrix: (SOIL | /SED/WATER) SOIL | - | Lab Sar | mple ID: | : 06C02710 | |
| | Sample wt/vol | : <u>5.87</u> (g/mL) g | _ | Lab Fi | le ID: <u>S</u> | E31C710 | |
| | Level: (TRACE | /LOW/MED) LOW | _ | Date Re | eceived: | 06/08/2006 | |
| | | ot dec. <u>14</u> | | Date Ar | nalyzed: | 06/14/2006 | |
| | | 524 ID: <u>0.53</u> | | Dilutio | on Facto | or: 1.0 | |
| | | Volume: | | | | | |
| | | UNITS: (ug/L or ug/kg) ug/kg | | | | | |
| | CAS NUMBER | COMPOUND NAM | | | | EST. CONC. | |
| 01 | | CONTROLL NAME | | | 101 | 551. COIVE. | + |
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| | E966796 ² | Total Alkanes | | <u>.</u> | N/A | · | |
| | | | | | | | |

¹EPA-designated Registry Number.

SOM01.1 (5/2048)

1A - FORM I VOA-1 VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

| J | 7 | 3w2 | |
|---|---|-----|--|
| | | | |

| Lab Name: DataChem Laboratories, Inc. | | Contract: EP-W- | 05-026 | |
|-----------------------------------------|---------|------------------------|-----------------------|------|
| Lab Code: DATAC Case No.: 35417 M | od. Ref | No.: | SDG No.: <u>J73T9</u> | |
| Matrix: (SOIL/SED/WATER) SOIL | | Lab Sample ID: | 06C02712 | |
| Sample wt/vol: $5^{\circ}.90$ (g/mL) g | | Lab File ID: <u>SE</u> | 32C712 | |
| Level: (TRACE/LOW/MED) LOW | | Date Received: | 06/08/2006 | |
| % Moisture: not dec. <u>25</u> | | Date Analyzed: | 06/14/2006 | |
| GC Column: <u>DB624</u> ID: <u>0.53</u> | (mm) | Dilution Factor | : 1.0 | |
| Soil Extract Volume: | (uL) | Soil Aliquot Vo | lume: | (uL) |
| Purge Volume: 10.0 | (mL) | | | |

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg | Q |
|-----------|---------------------------------------|--------------------------------------------|----------|
| 75-71-8 | Dichlorodifluoromethane | 5.6 | <u>ט</u> |
| 74-87-3 | Chloromethane | 5.6 | Ü |
| 75-01-4 | Vinyl-chloride | 5.6 | Ū |
| 74-83-9 | Bromomethane | 5.6 | Ü |
| 75-00-3 | Chloroethane | 5.6 | Ū |
| 75-69-4 | Trichlorofluoromethane | 5.6 | ט |
| 75-35-4 | 1,1-Dichloroethene | 5.6 | Ü |
| 76-13-1 | 1,1,2-Trichloro-1,2,2-trifluoroethane | 5.6 | Ü |
| 67-64-1 | Acetone | 26 | ~ |
| 75-15-0 | Carbon disulfide | 5.6 | Ü |
| 79-20-9 | Methyl acetate | 5.6 | Ü |
| 75-09-2 | Methylene chloride | 5-6 -0.94 | JE U |
| 156-60-5 | trans-1,2-Dichloroethene | 5.6 | Ü |
| 1634-04-4 | Methyl tert-butyl ether | 5.6 | Ū |
| 75-34-3 | 1,1-Dichloroethane | 5.6 | Ü |
| 156-59-2 | cis-1,2-Dichloroethene | 5.6 | Ü |
| 78-93-3 | 2-Butanone | 24 | v |
| 74-97-5 | Bromochloromethane | 5.6 | ט |
| 67-66-3 | Chloroform | 5.6 | Ü |
| 71-55-6 | 1,1,1-Trichloroethane | . 5.6 | Ū |
| 110-82-7 | Cyclohexane | 5.6 | Ü |
| 56-23-5 | Carbon tetrachloride | 5.6 | Ü |
| 71-43-2 | Benzene | 5.6 | Ū |
| 107-06-2 | 1,2-Dichloroethane | 5.6 | Ü |
| 123-91-1 | 1,4-Dioxane | 110 | XR |

SOMO1.1 (5/2053)

1B - FORM I VOA-2 VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

| Lab Name: DataCnem Laboratories, Inc. | | Contract: EP-W-05-026 |
|---------------------------------------|-------------|----------------------------------|
| Lab Code: DATAC Case No.: 35417 | Mod. Rei | f No.: SDG No.: <u>J73T9</u> |
| Matrix: (SOIL/SED/WATER) SOIL | | Lab Sample ID: 06C02712 |
| Sample wt/vol: 5.90 (g/mL) g | | Lab File ID: SE32C712 |
| Level: (TRACE/LOW/MED) LOW | | Date Received: 06/08/2006 |
| % Moisture: not dec. 25 | | Date Analyzed: <u>06/14/2006</u> |
| GC Column: DB624 ID: 0.53 | (mm) | Dilution Factor: 1.0 |
| Soil Extract Volume: | (uL) | Soil Aliquot Volume:(uL) |
| Purge Volume: 10.0 | (mL) | |

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg | Q |
|------------------|-----------------------------|--------------------------------------------|--------------|
| 79-01-6 | Trichloroethene | 5.6 | U . |
| 108-87-2 | Methylcyclonexane | . 5.6 | Ū |
| 78-87-5 | 1,2-Dichloropropane | 5.6 | U |
| 75-27-4 | Bromodichloromethane | 5.6 | Ū, |
| 10061-01-5 | cis-1,3-Dichloropropene | 5.6 | Ū v |
| 108-10-1 | 4-Methyl-2-Pentanone | 11 | Ü |
| 108-88-3 | Toluene | 5.8 2.18 | IU |
| 10061-02-6 | trans-1,3-Dichloropropene | 5.6 | Ū · |
| 79-00-5 | 1,1,2-Trichloroethane | 5.6 | Ü |
| 127-18-4 | Tetrachloroethene | 5.6 | Ū |
| 591-78-6 | 2-Hexanone | 11 | U |
| 124-48-1 | Dibromochloromethane | 5.6 | Ū |
| 106-93-4 | 1,2-Dibromoethane | 5.6 | U |
| 108-90-7 | Chlorobenzene | 5.6 | Ū |
| 100-41-4 | Ethylbenzene | 5.6 | Ū |
| 95-47-6 | o-Xylene | 5.6 | Ū |
| 179601-23-1 | m,p-Xylene | 5.0 000 | TU |
| 100-42-5 | Styrene | 5.6 | Ü |
| 75-25 - 2 | Bromoform | 5.6 | Ü |
| 98-82-8 | Isopropylbenzene | 5.6 | Ü |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 5.6 | U |
| 541-73-1 | 1,3-Dichlorobenzene | 5.6 | Ū |
| 106-46-7 | 1,4-Dichlorobenzene | 5.6 | U |
| 95-50-1 | 1,2-Dichlorobenzene | 5.6 | Ü |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | 5.6 | Ū |
| 120-82-1 | 1,2,4-Trichlorobenzene | 5.6 | Ū |
| 87-61-6 | 1,2,3-Trichlorobenzene | 5.6 | ΰ |

Bol 28/00 SOM01.1 (5) 2058

1J - FORM I VOA-TIC

VOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

| EPA | SAMPLE | NO. | |
|-----|--------|-----|--|
| | J73W2 | | |

| | | | | | | JW2 |
|--------------------------------------------|--------------|-------------|----------------|------------------------------------------------|----------------|--------------|
| Lab Name: DataChem Laboratories, Inc. | _ | Contrac | t: <u>EP-W</u> | -05-026 | | |
| Lab Code: DATAC Case No.: 35417 M | 1od. Rei | f No.: | | SDG No. | : <u>J73T9</u> | |
| Matrix: (SOIL/SED/WATER) SOIL | _ | Lab Sam | nple ID: | 06C02712 | | |
| Sample wt/vol: 5.90 (g/mL) g | | | | * | | |
| Level: (TRACE/LOW/MED) LOW | | | _ | 06/08/20 | | |
| % Moisture: not dec. 25 | | | | | | |
| GC Column: DB624 ID: 0.53 | | | | | | |
| Soil Extract Volume: | - | | | | | |
| CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg | | | | | | |
| | | Furde A | | | | |
| CAS NUMBER COMPOUND NAM | E | | RT | EST. | CONC. | Q |
| 01 02 | | | | | | |
| 03 | | | | | | |
| 04 | | | | | | |
| U3 | | | | | | |
| 06 | | | <u> </u> | <u> </u> | | |
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| 11 12 | | | | | | |
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| 20 | | | | | | |
| 21 22 | | | | | | |
| 23 | | | | | | |
| 2.4 | | | | | | |
| 25 | | | | | | |
| 26 27 | | | | | | |
| 28 | | | | | | |
| 29 | | | | | | |
| 30 | | | | | | |

¹EPA-designated Registry Number.

Total Alkanes

E9667963

N/A

1A - FORM I VOA-1 VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

| Lab Name: DataChem Lal | poratories, Inc. | | Contract: EP-W-05-026 | |
|------------------------|------------------------|---------|----------------------------------|------|
| Lab Code: DATAC | Case No.: <u>35417</u> | Mod. Re | f No.: SDG No.: <u>J73T9</u> | |
| Matrix: (SOIL/SED/WAT | ER) <u>WATER</u> | | Lab Sample ID: 06C02713 | |
| Sample wt/vol: 5.00 | (g/mL) <u>m</u> L | | Lab File ID: PD88C713 | . = |
| Level: (TRACE/LOW/MED |) LOW | | Date Received: <u>06/08/2006</u> | |
| % Moisture: not dec | | | Date Analyzed: 06/13/2006 | |
| GC Column: DB624 | ID: <u>0.53</u> | (mm) | Dilution Factor: 1.0 | |
| Soil Extract Volume: _ | | (uL) | Soil Aliquot Volume: | (uL) |
| Purge Volume: 5.0 | | (mL) | | |

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/kg) ug/L | Q |
|-----------|---------------------------------------|-------------------------------------------|-------------|
| 75-71-8 | Dichlorodifluoromethane | 5.0 | Ü |
| 74-87-3 | Chloromethane | 5.0 | |
| 75-01-4 | Vinyl chloride | 5.0. | Ū ~ |
| 74-83-9 | Bromomethane | 5.0 | U |
| 75-00-3 | Chloroethane | 5.0 | Ü |
| 75-69-4 | Trichlorofluoromethane | 5.0 | <u> </u> |
| 75-35-4 | 1,1-Dichloroethene | 5.0 | U F |
| 76-13-1 | 1,1,2-Trichloro-1,2,2-trifluoroethane | 5.0 | Ū |
| 67-64-1 | Acetone | 10 | <u> </u> |
| 75-15-0 | Carbon disulfide | 5.0 | |
| 79-20-9 | Methyl acetate | 5.0 | Ū |
| 75-09-2 | Methylene chloride | 5.0 | Ū |
| 156-60-5 | trans-1,2-Dichloroethene | 5.0 | Ü |
| 1634-04-4 | Methyl tert-butyl ether | 5.0 | Ū |
| 75-34-3 | 1,1-Dichloroethane | 5.0 | Ū |
| 156-59-2 | cis-1,2-Dichloroethene | 5.0 | Ü |
| 78-93-3 | 2-Butanone | 10 | Ü |
| 74-97-5 | Bromochloromethane | 5.0 | Ū |
| 67-66-3 | Chloroform | 5.0 | Ū |
| 71-55-6 | 1,1,1-Trichloroethane | 5.0 | Ū |
| 110-82-7 | Cyclohexane | 5.0 | Ū |
| 56-23-5 | Carbon tetrachloride | 5.0 | U |
| 71-43-2 | Benzene | 5.0 | Ü |
| 107-06-2 | 1,2-Dichloroethane | 5.0 | U |
| 123-91-1 | 1,4-Dioxane | 100 | XR |

SOM01.1 (5/3007)

1B - FORM I VOA-2 VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

| Lab Name: DataChem Laboratories, Inc. | Contract: EP-W-05-026 | | | |
|---------------------------------------|-----------------------|-----------------|-----------------------|--------|
| Lab Code: DATAC Case No.: 35417 N | Mod. Ref | No.: | SDG No.: <u>J73T9</u> | |
| Matrix: (SOIL/SED/WATER) WATER | - | Lab Sample ID: | 06C02713 | |
| Sample wt/vol: 5.00 (g/mL) mL | _ | Lab File ID: PD | 088C713 | |
| Level: (TRACE/LOW/MED) LOW | _ | Date Received: | 06/08/2006 | |
| % Moisture: not dec. | - - | Date Analyzed: | 06/13/2006 | |
| GC Column: DB624 ID: 0.53 | _ (mm) | Dilution Factor | r: <u>1.0</u> | |
| Soil Extract Volume: | _ (uL) | Soil Aliquot Vo | olume: | _ (uL) |
| Purge Volume: 5.0 | _ (mL) | | | |

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/kg) ug/L | Q |
|-------------|-----------------------------|-------------------------------------------|-----|
| 79-01-6 | Trichloroethene | 5.0 | U |
| 108-87-2 | Methylcyclohexane | 5.0 | Ū |
| .7.8-8.7-5 | 1,2-Dichloropropane | 5.0 | Ū |
| 75-27-4 | Bromodichloromethane | 5.0 | Ū |
| 10061-01-5 | cis-1,3-Dichloropropene | 5.0 | , Ū |
| 108-10-1 | 4-Methyl-2-Pentanone | 10 | Ü |
| 108-88-3 | Toluene | 5.0 | Ü |
| 10061-02-6 | trans-1,3-Dichloropropene | . 5.0 | Ū |
| 79-00-5 | 1,1,2-Trichloroethane | 5.0 | Ü |
| 127-18-4 | Tetrachloroethene | 5.0 | Ü |
| 591-78-6 | 2-Hexanone | 10 | Ü |
| 124-48-1 | Dibromochloromethane | 5.0 | Ü |
| 106-93-4 | 1,2-Dibromoethane | 5.0 | Ū |
| 108-90-7 | Chlorobenzene | 5.0 | U |
| 100-41-4 | Ethylbenzene | 5.0 | Ū |
| 95-47-6 | o-Xylene | 5.0 | Ū |
| 179601-23-1 | m,p-Xylene | 5.0 | Ū |
| 100-42-5 | Styrene | 5.0 | Ū |
| 75-25-2 | Bromoform | 5.0 | . ט |
| 98-82-8 | Isopropylbenzene | 5.0 | Ū |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 5.0 | Ū |
| 541-73-1 | 1,3-Dichlorobenzene | 5.0 | Ū |
| 106-46-7 | 1,4-Dichlorobenzene | 5.0 | Ū |
| 95-50-1 | 1,2-Dichlorobenzene | 5.0 | Ū |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | 5.0 | υ |
| 120-82-1 | 1,2,4-Trichlorobenzene | 5.0 | Ū |
| 37-61-6 | 1,2,3-Trichlorobenzene | 5.0 | Ü |

50M01.1 (5(2)68)

1J - FORM I VOA-TIC VOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

| EPA | SAMPLE | NO. | |
|-----|--------|-----|--|
| | J73W3 | | |

| | | | | | \ <u></u> | · |
|------------|-----------------------|---------------------------------------|-------------|--------------------|---------------------------------------|--------------------------------------------------|
| | Lab Name: <u>Data</u> | Chem Laboratories, Inc. | Con | tract: <u>EP-W</u> | -05-026 | |
| | Lab Code: <u>DATA</u> | AC Case No.: 35417 Mod | . Ref No. | .: | SDG No.: <u>J73T9</u> | |
|] | Matrix: (SOIL | /SED/WATER) <u>WATER</u> | Lab | Sample ID: | 06C02713 | |
| ; | Sample wt/vol | : 5.00 (g/mL) mL | Lab | File ID: P | D88C713 | · |
| : | Level: (TRACE, | /LOW/MED) LOW | Dat | e Received: | 06/08/2006 | |
| | | ot dec. | Dat | e Analyzed: | 06/13/2006 | |
| | | 124 ID: 0.53 (π | | | | |
| | | Volume:(u | | | | |
| | | UNITS: (ug/L or ug/kg) ug/L | | | | |
| J | | | | | | |
| | CAS NUMBER | COMPOUND NAME | | RT | EST. CONC. | Q |
| 01 | | | | | | |
| 03 | | | | | | |
| 04 | <u> </u> | | | | | · · · · · · · · · · · · · · · · · · · |
| 05 | | | | | | |
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| 23 | | | | | | |
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| 26 | | | <u> </u> | | | |
| 28 | | | | | | |
| 29 | | | | | | |
| 30 | 966796 | Total Alkanes | | N/A | | |
| 1 6. | 2007 / 20 | LIULEI EIKENES | | 1 187.431 | | , , , , , , , , , , , , , , , , , , , , |

¹EPA-designated Registry Number.

SOM01.1

1A - FORM I VOA-1 VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

| J73 | 3W7 | |
|-----|-----|--|

| Lab Name: DataChem La | boratories, Inc. | | Contract: I | EP-W-05-026 | |
|-----------------------|------------------|-------------|-------------|------------------------|------|
| Lab Code: DATAC | Case No.: 35417_ | Mod. Re | f No.: | SDG No.: <u>J73T9</u> | |
| Matrix: (SOIL/SED/WAT | ER) <u>WATER</u> | | Lab Sample | ID: 06C02714 | |
| Sample wt/vol: 5.00 | (g/mL) <u>mL</u> | | Lab File I | D: PD89C714 | |
| Level: (TRACE/LOW/MED |)) LOW | | Date Recei | ved: <u>06/08/2006</u> | |
| % Moisture: not dec. | | | Date Analy | zed: <u>06/13/2006</u> | |
| GC Column: DB624 | ID: 0.53 | (mm) | Dilution F | actor: 1.0 | |
| Soil Extract Volume: | | (uL) | Soil Aliqu | ot Volume: | (uL) |
| Purge Volume: 5 0 | | (mT.) | | | |

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/kg) ug/L | Q |
|-----------|---------------------------------------|-------------------------------------------|-----|
| 75-71-8 | Dichlorodifluoromethane | 5.0 | Ū |
| 74-87-3 | Chloromethane | 5.0 | Ū |
| 75-01-4 | Vinyl chloride | 5.0 | U . |
| 74-83-9 | Bromomethane | 5.0 | Ū |
| 75-00-3 | Chloroethane | 5.0 | ט |
| 75-69-4 | Trichlorofluoromethane | 5.0 | Ū |
| 75-35-4 | 1,1-Dichloroethene | 5.0 | Ū |
| 76-13-1 | 1,1,2-Trichloro-1,2,2-trifluoroethane | 5.0 | Ū |
| 67-64-1 | Acetone | 10 | U |
| 75-15-0 | Carbon disulfide | 5.0 | Ū |
| 79-20-9 | Methyl acetate | 5.0 | Ū |
| 75-09-2 | Methylene chloride | 5.0 | U |
| 156-60-5 | trans-1,2-Dichloroethene | 5.0 | . U |
| 1634-04-4 | Methyl tert-butyl ether | 5.0 | Ū |
| 75-34-3 | 1,1-Dichloroethane | 5.0 | Ü |
| 156-59-2 | cis-1,2-Dichloroethene | 5.0 | Ū |
| 78-93-3 | 2-Butanone | 10 | ט |
| 74-97-5 | Bromochloromethane | 5.0 | ΰ |
| 67~66-3 | Chloroform | 5.0 | Ū |
| 71-55-6 | 1,1,1-Trichloroethane | 5.0 | Ü |
| 110-82-7 | Cyclohexane | 5.0 | υ |
| 56-23-5 | Carbon tetrachloride | 5.0 | Ū |
| 71-43-2 | Benzene | 5.0 | Ū |
| 107-06-2 | 1,2-Dichloroethane | 5.0 | U |
| 123-91-1 | 1,4-Dioxane | 100 | ZR |

10 25 000 pm 10 pm

1B - FORM I VOA-2 VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

| .77 | 3W7 | |
|-----|-----|--|
| | | |

| Lab Name: DataChem Laboratories, Inc. | _ | Contract: EP-W-05-026 |
|---------------------------------------|----------|--------------------------------------|
| Lab Code: DATAC Case No.: 35417 M | iod. Ref | No.: SDG No.: <u>J</u> 73 <u>T</u> 9 |
| Matrix: (SOIL/SED/WATER) WATER | - | Lab Sample ID: 06C02714 |
| Sample wt/vol: 5.00 (g/mL) mL | - | Lab File ID: PD89C714 |
| Level: (TRACE/LOW/MED) LOW | | Date Received: 06/08/2006 |
| <pre>% Moisture: not dec.</pre> | | Date Analyzed: 06/13/2006 |
| GC Column: DB624 . ID: 0.53 | (mm) | Dilution Factor: 1.0 |
| Soil Extract Volume: | (uL) | Soil Aliquot Volume:(uL) |
| Purge Volume: 5.0 | (mL) | |

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/kg) ug/L | Q |
|-------------|-----------------------------|-------------------------------------------|-------|
| 79-01-6 | Trichloroethene | 5.0 | U |
| 108-87-2 | Methylcyclohexane | 5.0 | Ū |
| 78-87-5. | 1,2-Dichloropropane | 5.0 | . T U |
| 75-27-4 | Bromodichloromethane | 5.0 | Ü |
| 10061-01-5 | cis-1,3-Dichloropropene | 5.0 | Ü |
| 108-10-1 | 4-Methyl-2-Pentanone | 10 | U 🚜 |
| 108-88-3 | Toluene | 5.0 | Ū. |
| 10061-02-6 | trans-1,3-Dichloropropene | 5.0 | Ū p |
| 79-00-5 | 1,1,2-Trichloroethane | 5.0 | U. |
| 127-18-4 | Tetrachloroethene | . 5.0 | ט |
| 591-78-6 | 2-Hexanone | . 10 | Ū |
| 124-48-1 | Dibromochloromethane | 5.0 | Ü |
| 106-93-4 | 1,2-Dibromoethane | . 5.0 | ΰ |
| 108-90-7 | Chlorobenzene | 5.0 | Ū |
| 100-41-4 | Ethylbenzene | . 5.0 | Ü |
| 95-47-6 | o-Xylene | 5.0 | Ū |
| 179601-23-1 | m,p-Xylene | 5.0 | Ū |
| 100-42-5 | Styrene | 5.0 | Ū |
| 75-25-2 | Bromoform | 5.0 | ט |
| 98-82-8 | Isopropylbenzene | 5.0 | Ū |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 5.0 | Ū |
| 541-73-1 | 1,3-Dichlorobenzene | 5.0 | Ü |
| 106-46-7 | 1,4-Dichlorobenzene | 5.0 | Ü |
| 95-50-1 | 1,2-Dichlorobenzene | 5.0 | Ū |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | 5.0 | Ü , |
| 120-82-1 | 1,2,4-Trichlorobenzene | 5.0 | Ü |
| 87-61-6 | 1,2,3-Trichlorobenzene | 5.0 | Ū |

50M01.1 (5/2023)

1J - FORM I VOA-TIC

VOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

| EPA | SAMPLE | NO. |
|-----|--------|-----|
| | J73W7 | |

| Lab Name: Da | taChem Laboratories, Inc. | | Contrac | t: <u>EP-W-</u> | 05-026 | | |
|----------------------|-------------------------------|---------------------------------------|----------------------------------------|-----------------|---------------------------------------|-------|------|
| Lab Code: DA' | TAC Case No.: 35417 | Mod. Re | ī No.: | | SDG No.: | J73T9 | |
| | L/SED/WATER) WATER | | | | 06C02714 | | |
| | l: 5.00 (g/mL) mL | | | | 890714 | | |
| | E/LOW/MED) LOW | | | | 06/08/200 | | |
| | | | | | 06/13/200 | | |
| | not dec. | | | | | | |
| | B624 ID: 0.53 | • | | | | | |
| | Volume: | | | | | | |
| CONCENTRATIO | N UNITS: (ug/L or ug/kg) ug/l | <u>L</u> | Purge V | olume: <u>5</u> | .0 | | (mL) |
| CAS NUMBER | | ME | | - | EST. (| | Q |
| 1 115-07-1 | Propene | | | 3.05 | | 6.5 | JN |
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| 3 4 | | · · · · · · · · · · · · · · · · · · · | · · · · · · · · | | | | |
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| | | | | | <u> </u> | | |
| E966796 ² | Total Alkanes | • | | N/A | | | |

¹EPA-designated Registry Number.

SOM01.1 (5/20**78**)

1D - FORM I SV-1 SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

| EPA | SAMPLE | NO. |
|-----|--------|-----|
| | | |

| J73T9 | |
|-------|--|
| | |

| Lab Name: DataChem Laboratories, Inc. | Contract: <u>SP-W-05-026</u> |
|------------------------------------------|----------------------------------|
| Lab Code: DATAC Case No.: 35417 Mod. Ref | No.: SDG No.: <u>J73T9</u> |
| Matrix: (SOIL/SED/WATER) WATER | Lab Sample ID: 06C02709 |
| Sample wt/vol: 1000 (g/mL) mL | Lab File ID: RNG04C09 |
| Level: (LOW/MED) LOW | Extraction: (Type) CONT |
| % Moisture: Decanted: (Y/N) | Date Received: 06/08/2006 |
| Concentrated Extract Volume: 1000 (uL) | Date Extracted: 06/13/2006 |
| Injection Volume: 1.0 (uL) GPC Factor: | Date Analyzed: <u>06/19/2006</u> |
| GPC Cleanup: (Y/N) N pH: | Dilution Factor: 1.0 |

| | | CONCENTRATION UNITS: | | |
|------------------|------------------------------|----------------------|------|--|
| CAS NO. | COMPOUND | (ug/L or ug/kg) ug/L | Q | |
| 100-52-7 | Benzaldehyde | 5.0 | Ū ". | |
| 108-95-2 | Phenol | 5.0 | Ū. | |
| 111-44-4 | · Bis(2-chloroethyl)ether | 5.0 | Ü | |
| 95-57-8 | 2-Chlorophenol | 5.0 | Ü | |
| 95-48-7 | 2-Methylphenol | 5.0 | Ū | |
| 108-60-1 | 2,2'-Oxybis(1-chloropropane) | 5.0 | Ü | |
| 98-86-2 | Acetophenone | 5.0 | Ū | |
| 106-44-5 | 4-Methylphenol | 5.0 | Ū | |
| 621-64-7 | N-Nitroso-di-n-propylamine | 5.0 | Ü | |
| 67-72-1 | Hexachloroethane | 5.0 | Ū, | |
| 98-95-3 | Nitrobenzene | 5.0 | Ū · | |
| 78-59-1 | Isophorone | 5.0 | Ū | |
| 88-75 - 5 | 2-Nitrophenol | 5.0 | Ü | |
| 105-67-9 | 2,4-Dimethylphenol | 5.0 | Ū | |
| 111-91-1 | Bis(2-chloroethoxy)methane | 5.0 | Ŭ· | |
| 120-83-2 | 2,4-Dichlorophenol | 5.0 | Ū- | |
| 91-20-3 | Naphthalene | 5.0 | Ū | |
| 106-47-8 | 4-Chloroaniline | 5.0 | U | |
| 87-68-3 | Hexachlorobutadiene | 5.0 | Ū | |
| 105-60-2 | Caprolactam | 5.0 | Ū | |
| 59-50-7 | 4-Chloro-3-methylphenol | 5.0 | Ū | |
| 91-57-6 | 2-Methylnaphthalene | 5.0 | Ū | |
| 77-47-4 | Hexachlorocyclopentadiene | 5.0 | Ū | |
| 88-06-2 | 2,4,6-Trichlorophenol | 5.0 | Ū. | |
| 95-95-4 | 2,4,5-Trichlorophenol | 5.0 | Ü | |
| 92-52-4 | 1,1'-Biphenyl | 5.0 | Ū | |
| 91-58-7 | 2-Chloronaphthalene | 5.0 | Ü | |
| 88-74-4 | 2-Nitroaniline | 10 | Ü | |
| 131-11-3 | Dimethylphthalate | 5.0 | Ū | |
| 606-20-2 | 2,6-Dinitrotoluene | 5.0 | Ū | |
| 208-96-8 | Acenaphthylene | 5.0 | Ū | |
| 99-09-2 | 3-Nitroaniline | 10 | Ū | |
| 83-32-9 | Acenaphthene | 5.0 | Ū | |

Use this run

BP 8/29/00

1E - FORM I SV-2 SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

| .7 | 7 | 34 | a | |
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| Lab Name: DataChem Laboratories, Inc. | Contract: EP-W-05-026 |
|------------------------------------------|----------------------------------|
| Lab Code: DATAC Case No.: 35417 Mod. Ref | No.: SDG No.: <u>J73T9</u> |
| Matrix: (SOIL/SED/WATER) WATER | Lab Sample ID: 06C02709 |
| Sample wt/vol: 1000 (g/mL) mL | Lab File ID: RNG04C09 |
| Level: (LOW/MED) LOW | Extraction: (Type) CONT |
| % Moisture: Decanted: (Y/N) | Date Received: <u>06/08/2006</u> |
| Concentrated Extract Volume: 1000 (uL) | Date Extracted: 06/13/2006 |
| Injection Volume: 1.0 (uL) GPC Factor: | Date Analyzed: 06/19/2006 |
| GPC Cleanup: (Y/N) N pH: | Dilution Factor: 1.0 |

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/kg) ug/L | Q |
|-----------|-------------------------------------|-------------------------------------------|-----|
| 51-28-5 | 2,4-Dinitrophenol | 10 | Ū |
| 100-02-7 | 4-Nitrophenol | 10 | Ū |
| 132-64-9 | Dibenzofuran | 5.0 | Ū |
| 121-14-2 | 2,4-Dinitrotoluene | 5.0 | Ū |
| 84-66-2 | Diethylphthalate | 5.0 | Ü |
| 86-73-7 | Fluorene | 5.0 | Ū |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 5:0 | Ū |
| 100-01-6 | 4-Nitroaniline | 10 | Ū |
| 534-52-1 | 4,6-Dinitro-2-methylphenol | 10 | Ū |
| 86-30-6 | N-Nitrosodiphenylamine ¹ | 5.0 | Ū |
| 95-94-3 | 1,2,4,5-Tetrachlorobenzene | 5.0 | Ü |
| 101-55-3 | 4-Bromophenyl-phenyletner | 5.0 | Ū |
| 118-74-1 | Hexachlorobenzene | 5.0 | Ü |
| 1912-24-9 | Atrazine | 5.0 | Ū |
| 87-86-5 | Pentachlorophenol | 10 | U |
| 85-01-8 | Phenanthrene | 5.0 | Ū · |
| 120-12-7 | Anthracene | 5.0 | U |
| 86-74-8 | Carbazole | 5.0 | Ū |
| 84-74-2 | Di-n-butylphthalate | 5.0 | U |
| 206-44-0 | Fluoranthene | 5.0 | Ū |
| 129-00-0 | Pyrene | 5.0 | Ū |
| 85-68-7 | Butylbenzylphthalate | 5.0 | Ü |
| 91-94-1 | 3,3'-Dichlorobenzidine | 5.0 | Ū |
| 56-55-3 | Benzo(a)anthracene | 5.0 | Ü |
| 218-01-9 | Chrysene | 5.0 | Ü |
| 117-81-7 | Bis(2-ethylhexyl)phthalate | 5.0 | U |
| 117-84-0 | Di-n-octylphthalate . | 5.0 | Ü |
| 205-99-2 | Benzo(b) fluoranthene | 5.0 | Ū |
| 207-08-9 | Benzo(k) fluoranthene | 5.0 | Ü |
| 50-32-8 | Benzo(a)pyrene | 5.0 | Ü |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 5.0 | Ū |
| 53-70-3 | Dibenzo(a, h) anthracene | 5.0 | Ū |
| 191-24-2 | Benzo(g,h,i)perylene | 5.0 | Ū |
| 58-90-2 | 2,3,4,6-Tetrachlorophenol | 5.0 | U |

¹Cannot be separated from Diphenylamine

Use this run

H8/23/86

1K - FORM I SV-TIC

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

| EPA | SAMPLE | NO. |
|-----|--------|-----|
| | J73T9 | |

| Lab Name: DataChem Lab | oratories, Inc. | · | Contract: EP-W-05-026 |
|-------------------------|------------------------|---------------|----------------------------------|
| Lab Code: DATAC | Case No.: <u>35417</u> | Mod. Ref | No.: SDG No.: <u>J73T9</u> |
| Matrix: (SOIL/SED/WAT) | ER) <u>WATER</u> | | Lab Sample ID: 06C02709 |
| Sample wt/vol: 1000 | (g/mL) <u>mL</u> | | Lab File ID: RNG04C09 |
| Level: (LOW/MED) LOW | | | Extraction: (Type) CONT |
| % Moisture: | Decanted: (Y/N) _ | | Date Received: <u>06/08/2006</u> |
| Concentrated Extract V | Volume: 1000 | _ (uL) | Date Extracted: 06/13/2006 |
| Injection Volume: 1.0 | (uL) GPC Factor | : | Date Analyzed: <u>06/19/2006</u> |
| GPC Cleanup: (Y/N) N | pH: | | Dilution Factor: 1.0 |
| | | | |

CONCENTRATION UNITS: (ug/L or ug/kg) ug/L

| Unsaturated Hydrocarbon 4.10 18 Unsaturated Hydrocarbon 4.17 2.6 321-60-8. 1.1 Highienyl. 2-fluore 7.73 12 118-79-6 Phenol. 2.4,6-tribrome 10.25 42 1718-51-0 p-Terphenyl-ai4 16.27 66 100022-00-0 6,8-Dodecadien-1-ol (62,82) 15.28 2.3 Pelycyclic Hydrocarbon 18.92 10 Pelycyclic hydrocarbon 24.30 13 | . Q |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| 321-60-8 1,1-Biphenyl, 2-fluore 7.73 1; 118-79-6 Phencl, 2,4,6-tribrome 10.25 42 1718-51-0 P-Terphenyl-a14 14.27 48 100022-00-0 6,8-Dodecadien-1-ol (62,82) 15.28 2.3 Polycyclic hydrocarbon 18.92 10 Pelycyclic hydrocarbon 24.30 11 | JВ |
| 321-60-8 | -Œ |
| 1718-51-0 p-Terpheny1-a14 14.27 48 100022-00-0 6,8-Dodecadien-1-ol (62,82) 15.28 2.3 Polycyclic hydrocarbon 18.92 10 Pelycyclic hydrocarbon 24.30 11 | 7,75 |
| 100022-00-0 6,8-Dodecadien-1-ol (62,82) 15.28 2.3 Felycyclic hydrocarbon 18.92 10 Pelycyclic hydrocarbon 24.30 11 | JWE |
| Felycyclic hydrocarbon 18.92 10 Pelycyclic hydrocarbon 24.30 11 | JNE |
| Pelycyclic hydrocarbon 24.30 11 | ĴΝ̈́ |
| Pelycyclic hydrocarbon 24.30 11 | σĐ |
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| | |
| E966796 ² Total Alkanes N/A | |

²EPA-designated Registry Number.

Bl 8/29/00

SOM01.1 (5/253)

1D - FORM I SV-1 SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

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| Lab Name: DataChem Lab | oratories, Inc. | Contract: EP-W-05-026 |
|------------------------|---------------------------------|----------------------------------|
| Lab Code: DATAC | Case No.: <u>35417</u> Mod. Re: | f No.: SDG No.: <u>J73T9</u> |
| Matrix: (SOIL/SED/WATE | ER) <u>WATER</u> | Lab Sample ID: 06C02709R1 |
| Sample wt/vol: 1000 | (g/mL) <u>mL</u> | Lab File ID: RNS09C09 |
| Level: (LOW/MED) LOW | | Extraction: (Type) CONT |
| % Moisture: | Decanted: (Y/N) N | Date Received: 06/08/2006 |
| Concentrated Extract \ | Volume: 1000 (uL) | Date Extracted: 06/23/2006 |
| Injection Volume: 1.0 | (uL) GPC Factor: | Date Analyzed: <u>06/26/2006</u> |
| GPC Cleanup: (Y/N) N | pH: | Dilution Factor: 1.0 |
| | | |

| | T | CONCENTRATION UNITS: | |
|----------|------------------------------|----------------------|---|
| CAS NO. | COMPOUND | (ug/L or ug/kg) ug/L | Q |
| 100-52-7 | Benzaldehyde | 5.0 | U |
| 108-95-2 | Phenol | 5.0 | Ü |
| 111-44-4 | Bis(2-chloroethyl)ether | 5.0 | ΰ |
| 95-57-8 | 2-Chlorophenol | 5.0 | Ü |
| 95-48-7 | 2-Methylphenol | 5.0 | U |
| 108-60-1 | 2,2'-Oxybis(1-chloropropane) | 5.0 | Ü |
| 98-86-2 | Acetophenone | 5.0 | Ū |
| 106-44-5 | 4-Methylphenol | 5.0 | Ü |
| 621-64-7 | N-Nitroso-di-n-propylamine | 5.0 | Ū |
| 67-72-1 | Hexachloroethane | 5.0 | Ū |
| 98-95-3 | Nitrobenzene | 5.0 | Ū |
| 78-59-1 | Isophorone | 5.0 | Ü |
| 88-75-5 | 2-Nitrophenol | 5.0 | Ū |
| 105-67-9 | 2,4-Dimethylphenol | 5.0 | Ü |
| 111-91-1 | Bis(2-chloroethoxy)methane | 5.0 | Ü |
| 120-83-2 | 2,4-Dichlorophenol | 5.0 | Ū |
| 91-20-3 | Naphthalene | 5.0 | Ū |
| 106-47-8 | 4-Chloroaniline | 5.0 | Ü |
| 87-68-3 | Hexachlorobutadiene | 5.0 | Ū |
| 105-60-2 | Caprolactam | 5.0 | Ü |
| 59-50-7 | 4-Chloro-3-methylphenol | 5.0 | Ü |
| 91-57-6 | 2-Methylnaphthalene | 5.0 | Ū |
| 77-47-4 | Hexachlorocyclopentadiene | 5.0 | Ū |
| 88-06-2 | 2,4,6-Trichlorophenol | 5.0 | Ū |
| 95-95-4 | 2,4,5-Trichlorophenol | 5.0 | Ü |
| 92-52-4 | 1,1'-Biphenyl | 5.0 | U |
| 91-58-7 | 2-Chloronaphthalene | 5.0 | Ū |
| 88-74-4 | 2-Nitroaniline | 10 | Ü |
| 131-11-3 | Dimethylphthalate | 5.0 | Ū |
| 606-20-2 | 2,6-Dinitrotoluene | 5.0 | U |
| 208-96-8 | Acenaphthylene | 5.0 | ΰ |
| 99-09-2 | 3-Nitroaniline | 10 | Ü |
| 83-32-9 | Acenaphthene | 5.0 | Ū |

Use first run

BP 8/25/00

1E - FORM I SV-2 SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

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|---|---|------------------------|--|
| _ | , | 0 - 0 - 0 - | |

| Lab Name: DataChem Laboratories, Inc. | Contract: EP-W-05-026 |
|------------------------------------------|----------------------------|
| Lab Code: DATAC Case No.: 35417 Mod. Ref | No.: SDG No.: <u>J73T9</u> |
| Matrix: (SOIL/SED/WATER) WATER | Lab Sample ID: 06C02709R1 |
| Sample wt/vol: 1000 (g/mL) mL | Lab File ID: RNS09C09 |
| Level: (LOW/MED) LOW | Extraction: (Type) CONT |
| % N = N = N = N = N = N = N = N = N = N | Date Received: 06/08/2006 |
| Concentrated Extract Volume: 1000 (uL) | Date Extracted: 06/23/2006 |
| Injection Volume: 1.0 (uL) GPC Factor: | Date Analyzed: 06/26/2006 |
| GPC Cleanup: (Y/N) N pH: | Dilution Factor: 1.0 |

| | | CONCENTRATION UNITS: | _ |
|-----------|----------------------------|----------------------|-------|
| CAS NO. | COMPOUND | (ug/L or ug/kg) ug/L | Q |
| 51-28-5 | 2,4-Dinitrophenol | 10 | Ū |
| 100-02-7 | 4-Nitrophenol | 10 | Ü |
| 132-64-9 | Dibenzofuran | . 5.0 | U · |
| 121-14-2 | 2,4-Dinitrotoluene | 5.0 | Ü |
| 84-66-2 | Diethylphthalate | 5.0 | Ū |
| 86-73-7 | Fluorene | 5.0 | Ü |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 5.0 | Ū. |
| 100-01-6 | 4-Nitroaniline | 10 | Ü |
| 534-52-1 | 4,6-Dinitro-2-methylphenol | 10 | Ü |
| 86-30-6 | N-Nitrosodiphenylamine' | 5.0 | Ü |
| 95-94-3 | 1,2,4,5-Tetrachloropenzene | 5.0 | Ü |
| 101-55-3 | 4-Bromophenyl-phenylether | 5.0 | Ū |
| 118-74-1 | Hexachlorobenzene | 5.0 | U |
| 1912-24-9 | Atrazine | 5.0 | Ü |
| 87-86-5 | Pentachlorophenol | 10 | Ü |
| 85-01-8 | Phenanthrene | 5.0 | U |
| 120-12-7 | Anthracene | 5.0 | Ü |
| 86-74-8 | Carbazole | 5.0 | Ū |
| 84-74-2 | Di-n-butylphthalate | 5.0 | Ü |
| 206-44-0 | Fluoranthene | 5.0 | Ū |
| 129-00-0 | Pyrene | 5.0 | Ū |
| 85-68-7 | Butylbenzylphthalate | 5.0 | Ü |
| 91-94-1 | 3,3'-Dichlorobenzidine | 5.0 | U |
| 56-55-3 | Benzo(a)anthracene | 5.0 | Ü |
| 218-01-9 | Chrysene | 5.0 | Ū |
| 117-81-7 | Bis(2-ethylhexyl)phthalate | 5.0 -22 | ب کتر |
| 117-84-0 | Di-n-octylphthalate | 5.0 | Ū |
| 205-99-2 | Benzo(b) fluoranthene | 5.0 | Ū |
| 207-08-9 | Benzo(k) fluoranthene | 5.0 | Ū |
| 50-32-8 | Benzo(a)pyrene | 5.0 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 5.0 | Ū |
| 53-70-3 | Dibenzo(a,h)anthracene | 5.0 | Ü |
| 191-24-2 | Benzo(g,h,i)perylene | 5.0 | Ū |
| 58-90-2 | 2,3,4,6-Tetrachlorophenol | 5.0 | Ū |

¹Cannot be separated from Diphenylamine

use first run

12 8/20/2

1K - FORM I SV-TIC

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

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| U | - 7 | J | ÷ | 2 | $rac{1}{2}$ | |

| Lab Name: DataChem Lab | poratories, Inc. | | Contract: EP-W- | -05-026 | |
|------------------------|------------------------|-------------|-----------------|-----------------------|--|
| Lab Code: DATAC | Case No.: <u>35417</u> | Mod. Ref | No.: | SDG No.: <u>J73T9</u> | |
| Matrix: (SOIL/SED/WAT | ER) <u>WATER</u> | | Lab Sample ID: | 06C02709R1 | |
| Sample wt/vol: 1000 | (g/mL) <u>mL</u> | | Lab File ID: RN | 1S09C09 | |
| Level: (LOW/MED) LOW | | | Extraction: (Ty | vpe) CONT | |
| % Moisture: | Decanted: (Y/N) | N | Date Received: | 06/08/2006 | |
| Concentrated Extract | Volume: <u>1000</u> | (uL) | Date Extracted | : 06/23/2006 | |
| Injection Volume: 1.0 | (uL) GPC Facto | r: | Date Analyze | ed: <u>06/26/2006</u> | |
| GPC Cleanup: (Y/N) N | pH: | <u>:</u> | Dilution Factor | r: 1.0 | |
| | | | | | |

CONCENTRATION UNITS: (ug/L or ug/kg) ug/L

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---------------------------------------------|--------------------------|-------|------------|----|
| | Unknown oxyhydrocarbon | 4.53 | 5.7 | JB |
| | - Polycyelic hydrocarbon | 18 87 | 4.8 | |
| al management of the control of the control | | 24.24 | 3.9 | J |
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| | | | | |
| E966796 ² | Total Alkanes | N/A | | |

²EPA-designated Registry Number.

B/8/25/06

1D - FORM I SV-1 SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

| Lab Name: DataChem Laboratories, Inc. | Contract: EP-W-05-026 |
|--------------------------------------------|----------------------------|
| Lab Code: DATAC Case No.: 35417 Mod. Ref | No.: SDG No.: J73T9 |
| Matrix: (SOIL/SED/WATER) SOIL | Lab Sample ID: 06C02710 |
| Sample wt/vol: 30.0 (g/mL) g | Lab File ID: RNJ14C10 |
| Level: (LOW/MED) LOW | Extraction: (Type) SONC |
| % Moisture: 14 Decanted: (Y/N) N | Date Received: 06/08/2006 |
| Concentrated Extract Volume: 500 (uL) | Date Extracted: 06/14/2006 |
| Injection Volume: 1.0 (uL) GPC Factor: 2.0 | Date Analyzed: 06/21/2006 |
| GPC Cleanup: (Y/N) Y pH: 6.8 | Dilution Factor: 1.0 |

| · · | | CONCENTRATION UNITS: | |
|------------------|------------------------------|-----------------------|--------|
| CAS NO. | COMPOUND | (ug/L or ug/kg) ug/kg | Q |
| 100-52-7 | Benzaldenyde | 200 | Ū |
| 108-95-2 | Phenol | 200 | Ū |
| 111-44-4 | Bis(2-chloroethyl)ether | 200 | Ū |
| 95-57-8 | 2-Chlorophenol | 200 | Ü |
| 95-48-7 | 2-Methylphenol | 200 | Ü. |
| 108-60-1 | 2,2'-Oxybis(1-chloropropane) | 200 | U, |
| 98-86-2 | Acetophenone | 200-1 | را وتر |
| 106-44-5 | 4-Methylphenol | 200 | Ū |
| 621-64-7 | N-Nitroso-di-n-propylamine | . 200 | Ū, |
| 67-72-1 | Hexachloroethane | 200 | Ū |
| 98-95-3 | Nitrobenzene | 200 | Ū |
| 78-59-1 | Isophorone . | 200 | Ü |
| 88-75-5 | 2-Nitrophenol | 200 | Ü |
| 105-67-9 | 2,4-Dimethylphenol | 200 | Ü |
| 111-91-1 | Bis(2-chloroethoxy)methane | 200 | Ū |
| 120-83-2 | 2,4-Dichlorophenol | 200 | Ū |
| 91-20-3 | Naphthalene | 200 | Ū |
| 106-47-8 | 4-Chloroaniline | 200 | Ü |
| 87-68-3 | Hexachlorobutadiene | 200 | Ū |
| 105-60-2 | Caprolactam | 200 | Ū |
| 59-50 - 7 | 4-Chloro-3-methylphenol | 200 | Ū |
| 91-57-6 | 2-Methylnaphthalene | 200 | Ū |
| 77-47-4 | Hexachlorocyclopentadiene | 200 | Ū |
| 88-06-2 | 2,4,6-Trichlorophenol | 200 | Ū |
| 95-95-4 | 2,4,5-Trichlorophenol | , 200 | Ū |
| 92-52-4 | 1,1'-Biphenyl | 200 | Ü |
| 91-58-7 | 2-Chloronaphthalene | 200 | Ū |
| 88-74-4 | 2-Nitroaniline | 390 | Ū |
| 131-11-3 | Dimethylphthalate | 200 | Ū |
| 606-20-2 | 2,6-Dinitrotoluene | 200 | Ū |
| 208-96-8 | Acenaphthylene | 200 | Ū |
| 99-09-2 | 3-Nitroaniline | 390 | Ū |
| 83-32-9 | Acenaphthene | 200 | Ü |

1E - FORM I SV-2 SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

| Lab Name: DataChem Laboratories, Inc. | Contract: EP-W-05-026 |
|--------------------------------------------|----------------------------|
| Lab Code: DATAC Case No.: 35417 Mod. Ref | No.: SDG No.: <u>J73T9</u> |
| Matrix: (SOIL/SED/WATER) SOIL | Lab Sample ID: 06C02710 |
| Sample wt/vol: 30.0 (g/mL) g | Lab File ID: RNJ14C10 |
| Level: (LOW/MED) LOW | Extraction: (Type) SONC |
| % Moisture: 14 Decanted: (Y/N) N | Date Received: 06/08/2006 |
| Concentrated Extract Volume: 500 (uL) | Date Extracted: 06/14/2006 |
| Injection Volume: 1.0 (uL) GPC Factor: 2.0 | Date Analyzed: 06/21/2006 |
| GPC Cleanup: (Y/N) Y pH: 6.8 | Dilution Factor: 1.0 |

| G2 G 22 G | COMPOSIND | CONCENTRATION UNITS: | |
|-----------|----------------------------|-----------------------|-----------|
| CAS NO. | COMPOUND | (ug/L or ug/kg) ug/kg | Q |
| 51-28-5 | 2,4-Dinitrophenol | 390 | U |
| 100-02-7 | 4-Nitrophenol | 390 | Ū |
| 132-64-9 | Dibenzofuran | 200 | Ü |
| 121-14-2 | 2,4-Dinitrotoluene | 200 | Ū |
| 84-66-2 | Diethylphthalate | 200 | Ū |
| 86-73-7 | Fluorene | . 200 | Ū |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 200 | Ü |
| 100-01-6 | 4-Nitroaniline | 390 | Ū |
| 534-52-1 | 4,6-Dinitro-2-methylphenol | 390 | Ū |
| 86-30-6 | N-Nitrosodiphenylamine; | 200 | Ü |
| 95-94-3 | 1,2,4,5-Tetrachlorobenzene | 200 | Ü |
| 101-55-3 | 4-Bromophenyl-phenylether | 200 | Ü |
| 118-74-1 | Hexachlorobenzene | 200 | Ü |
| 1912-24-9 | Atrazine | 200 | Ū |
| 87-86-5 | Pentachlorophenol | 390 | Ū |
| 85-01-8 | Phenanthrene | 200 | Ü |
| 120-12-7 | Anthracene | 200 | Ū |
| 86-74-8 | Carbazole | 200 | Ü |
| 84-74-2 | Di-n-butylphthalate | 200 | Ū |
| 206-44-0 | Fluoranthene | 200 | Ū |
| 129-00-0 | Pyrene | 200 | Ũ |
| 85-68-7 | Butylbenzylphthalate | 200 | Ü |
| 91-94-1 | 3,3'-Dichlorobenzidine | 200 | Ü |
| 56-55-3 | Benzo(a)anthracene | 200 | Ü |
| 218-01-9 | Chrysene | 200 | Ü |
| 117-81-7 | Bis(2-ethylhexyl)phthalate | 200180 | <u>کر</u> |
| 117-84-0 | Di-n-octylphthalate | 200 | Ū |
| 205-99-2 | Benzo(b) fluoranthene | 200 | U |
| 207-08-9 | Benzo(k) fluoranthene | 200 | Ū |
| 50-32-8 | Benzo(a)pyrene | 200 | Ū |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 200 | Ū |
| 53-70-3 | Dibenzo(a,h)anthracene | 200 | Ū |
| 191-24-2 | Benzo(g,h,i)perylene | 200 | Ü |
| 58-90-2 | 2,3,4,6-Tetrachlorophenol | 200 | Ū |

^{&#}x27;Cannot be separated from Diphenylamine

5/25/06 SOM01.1 (5/2006)

1K - FORM I SV-TIC

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

·J73W0

| Lab Name: DataChem Laboratories, Inc. | Contract: EP-W-05-026 |
|--------------------------------------------|----------------------------------|
| Lab Code: DATAC Case No.: 35417 Mod. Ref | No.: SDG No.: <u>J73T9</u> |
| Matrix: (SOIL/SED/WATER) SOIL | Lab Sample ID: 06C02710 |
| Sample wt/vol: 30.0 (g/mL) g | Lab File ID: RNJ14C10 |
| Level: (LOW/MED) LOW | Extraction: (Type) SONC |
| % Moisture: 14 Decanted: (Y/N) N | Date Received: 06/08/2006 |
| Concentrated Extract Volume: 500 (uL) | Date Extracted: 06/14/2006 |
| Injection Volume: 1.0 (uL) GPC Factor: 2.0 | Date Analyzed: <u>06/21/2006</u> |
| GPC Cleanup: (Y/N) Y pH: 6.8 | Dilution Factor: 1.0 |
| | |

CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|-----|-------------|------------------------------------------|----------|------------|------|
| 01 | 4 | Unsaturated Hydrocarbon | 4.10 | 490 | JB |
| 02 | | Polycyclic hydrocarbon | 18.90 | 120 | J |
| 03 | 5'6881-08-4 | 7-Hydroxy-3-(1,1-dimethylprop-2-enyl)cou | 20.39 | 88 | JN |
| 04 | 100014-97-0 | Ledene oxide-(II) | 23.40 | 79 | JN |
| 05. | | Polycyclic hydrocarbon | 24.31 | 93 | J, |
| 06 | | | | | فبند |
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| Ī | E9667962 | Total Alkanes | N/A | | |

²EPA-designated Registry Number.

BD 8/25/04 SOM01.1 (5/2003)

1D - FORM I SV-1 SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

| EPA SAMPLE NO | ١. |
|---------------|----|
|---------------|----|

| J73W1 | |
|-------|--|
| | |

| Lab Name: DataChem Laboratories, Inc. | Contract: EP-W-05-026 |
|------------------------------------------|--------------------------------|
| Lab Code: DATAC Case No.: 35417 Mod. Ref | No.: SDG No.: <u>J73T9</u> |
| Matrix: (SOIL/SED/WATER) WATER | Lab Sample ID: <u>06C02711</u> |
| Sample wt/vol: 1000 (g/mL) mL | Lab File ID: RNG05C11 |
| Level: (LOW/MED) LOW | Extraction: (Type) CONT |
| % Moisture: Decanted: (Y/N) | Date Received: 06/08/2006 |
| Concentrated Extract Volume: 1000 (uL) | Date Extracted: 06/13/2006 |
| Injection Volume: 1.0 (uL) GPC Factor: | Date Analyzed: 06/19/2006 |
| GPC Cleanup: (Y/N) N pH: | Dilution Factor: 1.0 |

| | | CONCENTRATION UNITS: | |
|----------|------------------------------|----------------------|---|
| CAS NO. | COMPOUND | (ug/L or ug/kg) ug/L | Q |
| 100-52-7 | Benzaldehyde | 5.0 | Ü |
| 108-95-2 | Phenol | 5.0 | Ū |
| 111-44-4 | Bis(2-chloroethyl)ether | 5.0 | U |
| 95-57-8 | 2-Cnlorophenol | 5.0 | Ü |
| 95-48-7 | 2-Methylphenol | 5.0 | Ū |
| 108-60-1 | 2,2'-Oxybis(1-chloropropane) | 5.0 | Ū |
| 98-86-2 | Acetophenone | 5.0 | Ū |
| 106-44-5 | 4-Methylphenol | 5.0 | Ü |
| 621-64-7 | N-Nitroso-di-n-propylamine | 5.0 | Ü |
| 67-72-1 | Hexachloroethane | 5.0 | Ū |
| 98-95-3 | Nitrobenzene | 5.0 | Ü |
| 78-59-1 | Isophorone . | 5.0 | U |
| 88-75-5 | 2-Nitrophenol | 5.0 | Ü |
| 105-67-9 | 2,4-Dimethylphenol | 5.0 | Ū |
| 111-91-1 | Bis(2-chloroethoxy)methane | 5.0 | Ü |
| 120-83-2 | 2,4-Dichlorophenol | 5.0 | Ü |
| 91-20-3 | Naphthalene | 5.0 | Ü |
| 106-47-8 | 4-Chloroaniline | 5.0 | ΰ |
| 87-68-3 | Hexachlorobutadiene | 5.0 | Ü |
| 105-60-2 | Caprolactam | 5.0 | Ü |
| 59-50-7 | 4-Chloro-3-methylphenol | 5.0 | U |
| 91-57-6 | 2-Methylnaphthalene | 5.0 | Ū |
| 77-47-4 | Hexachlorocyclopentadiene | 5.0 | Ü |
| 88-06-2 | 2,4,6-Trichlorophenol | 5.0 | Ü |
| 95-95-4 | 2,4,5-Trichlorophenol | 5.0 | U |
| 92-52-4 | 1,1'-Biphenyl | 5.0 | Ü |
| 91-58-7 | 2-Chloronaphthalene | 5.0 | Ū |
| 88-74-4 | 2-Nitroaniline | 10 | U |
| 131-11-3 | Dimethylphthalate | 5.0 | Ū |
| 606-20-2 | 2,6-Dinitrotoluene | 5.0 | Ū |
| 208-96-8 | Acenaphthylene | . 5.0 | Ū |
| 99-09-2 | 3-Nitroaniline | 10 | U |
| 83-32-9 | Acenaphthene | 5.0 | Ū |

use this run

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SOMO1.1 (5/2087)

1E - FORM I SV-2 SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

| | | | _ |
|----|-----|------|---|
| J7 | 3W1 | | |

| | | CONCENTRATION UNITS: | |
|-----------|-------------------------------------|----------------------|--------|
| CAS NO. | COMPOUND | (ug/L or ug/kg) ug/L | Q |
| 51-28-5 | 2,4-Dinitropnenol | 10 | Ū |
| 100-02-7 | 4-Nitrophenol | 10 | Ū. |
| 132-64-9 | Dibenzofuran | 5.,0 | U |
| 121-14-2 | 2,4-Dinitrotoluene | 5.0 | Ū. |
| 84-66-2 | Diethylphthalate | 0.23 | JQ |
| 86-73-7 | Fluorene | 5.0 | U. |
| 7005-72-3 | 4Chlorophenyl-phenylether | 5.0 | Ū " |
| 100-01-6 | 4-Nitroaniline | 10 | ΰ. |
| 534-52-1 | 4,6-Dinitro-2-methylphenol | 10 | Ū |
| 86-30-6 | N-Nitrosodiphenylamine ² | 5.0 | Ū |
| 95-94-3 | 1,2,4,5-Tetrachlorobenzene | 5.0 | Ū |
| 101-55-3 | 4-Bromophenyl-phenylether | 5.0 | Ū |
| 118-74-1 | Hexachlorobenzene | 5.0 | Ū |
| 1912-24-9 | Atrazine | 5.0 | Ü |
| 87-86-5 | Pentachlorophenol | 10 | Ū |
| 85-01-8 | Phenanthrene | 5.0 | . U |
| 120-12-7 | Anthracene | 5.0 | Ü |
| 86-74-8 | Carbazole | 5.0 | Ū |
| 84-74-2 | Di-n-butylphthalate | 0.48 | JQ |
| 206-44-0 | Fluoranthene | 5.0 | Ü |
| 129-00-0 | Pyrene | 5.0 | Ū |
| 85-68-7 | Butylbenzylphthalate | 0.59 | υŪ |
| 91-94-1 | 3,3'-Dichlorobenzidine | 5.0 | ij |
| 56-55-3 | Benzo(a)anthracene | 5.0 | υ |
| 218-01-9 | Chrysene | 5.0 | Ū |
| 117-81-7 | Bis(2-ethylhexyl)phthalate | 5.0 0.68 | ں 5تیر |
| 117-84-0 | Di-n-octylphthalate | 5.0 | Ü |
| 205-99-2 | Benzo(b) fluoranthene | 5.0 | Ū |
| 207-08-9 | Benzo(k) fluoranthene | 50 | Ü |
| 50-32-8 | Benzo(a)pyrene | 5.0 | Ü |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | . 5.0 | Ū |
| 53-70-3 | Dibenzo(a,h)anthracene | 5.0 | Ü |
| 191-24-2 | Benzo(g,h,i)perylene | 5.0 | Ū |
| 58-90-2 | 2,3,4,6-Tetrachlorophenol | 5.0 | ΰ |

¹Cannot be separated from Diphenylamine

use this run

A 8/28/06

1K - FORM I SV-TIC

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

| ΕPΔ | SAMPLE | NO. |
|-----|--------|-----|
|-----|--------|-----|

| | ~ | - | |
|----|----|---|--|
| J/ | JW | Ţ | |

| L | ab Name: Data | Chem Laboratories, Inc. | Contrac | t: <u>EP-W</u> | -05-026 | | • |
|------------|---------------|-----------------------------------|-------------------|----------------|----------------------|---------------|-------------|
| Ŀ | ab Code: DATA | C Case No.: <u>35417</u> Mod. Ref | No.: | | SDG No.: <u>J73T</u> | 9 | |
| Ma | atrix: (SOIL/ | SED/WATER) WATER | Lab Sám | ple ID: | 06C02711 | | |
| Si | ample wt/vol: | 1000 (g/mL) mL | Lab Fil | e ID: Rì | NG05C11 | | |
| | evel: (LOW/ME | | Extract | ion: (T | ype) CONT | | |
| | | | | | | | |
| | | | | | | | |
| | | extract Volume: 1000 (uL) | | | | | |
| | | me: 1.0 (uL) GPC Factor: | | | | | · |
| G. | PC Cleanup: (| Y/N) <u>N</u> pH: | Dilutio | n Facto | r: <u>1.0</u> | B | |
| C | ONCENTRATION | UNITS: (ug/L or ug/kg) ug/L | | | | 8 | 22/06 |
| | CAS NUMBER | COMPOUND NAME | | Bæ | EST. CONC. | | Q |
| 01 | | Unsaturated Hydrocarbon | | 4.10 | | 24 | JВ |
| 02 | | Unsaturated Hydrocarbon | | 4.16 | | 3.9 | JB |
| | | 1;1'-Biphenyl, 2-fluoro | To produce of the | 7.72 | | 87 | JNB |
| 04 1: | 18-79-6 | Phenol, 2,4,6-tribromo- | | 10.24 | | 49 | JNB |
| 05 1 | 718-51-0 | p-Terphenyl-dl4 | | 14.28 | | 61 | JNB |
| 06 | | Pelycyclic hydrocarbon | | 18.91 | | 8.5 | JB |
| 07 | | Polycyclic hydrocarbon | | 24.30 | | 9.1 | JB |
| 08 | | | | | | | |
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| FQ | 66796² | Total Alkanes | ļ | N/A | | - 1 | 1 |

²EPA-designated Registry Number.

B 8/28/00

1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

| J7 | 3W1RX | |
|----|-------|--|
| | | |

| Lab Name: DataChem Laboratories, Inc. | Contract: EP-W-05-026 |
|------------------------------------------------------|----------------------------|
| Lab Code: DATAC Case No.: 35417 Mod. Ref | No.: SDG No.: <u>J73T9</u> |
| Matrix: (SOIL/SED/WATER) WATER | Lab Sample ID: 06C02711R1 |
| Sample wt/vol: 1000 (g/mL) $\underline{\text{mL}}$ | Lab File ID: RNS10Cl1 |
| Level: (LOW/MED) LOW | Extraction: (Type) CONT |
| % Moisture: Decanted: (Y/N) N | Date Received: 06/08/2006 |
| Concentrated Extract Volume: 1000 (uL) | Date Extracted: 06/23/2006 |
| Injection Volume: 1.0 (uL) GPC Factor: | Date Analyzed: 06/26/2006 |
| GPC Cleanup: (Y/N) N pH: | Dilution Factor: 1.0 |

| | | CONCENTRATION UNITS: | |
|----------|------------------------------|----------------------|-------|
| CAS NO. | COMPOUND | (ug/L or ug/kg) ug/L | Q |
| 100-52-7 | Benzaldehyde | 5.0 | Ü |
| 108-95-2 | Phenol | 5.0 | Ū |
| 111-44-4 | Bis(2-chloroethyl)ether | 5.0 | . Ü . |
| 95-57-8 | 2-Chlorophenol | 5.0 | ΰ |
| 95-48-7 | 2-Methylphenol | 5.0 | Ū |
| 108-60-1 | 2,2'-Oxypis(1-chloropropane) | 5.0 | Ū |
| 98-86-2 | Acetophenone | 5.0 | Ū, |
| 106-44-5 | 4-Methylphenol | 5.0 | Ū. |
| 621-64-7 | N-Nitroso-di-n-propylamine | 5.0 | Ü |
| 67-72-1 | Hexachloroethane | 5.0 | Ü |
| 98-95-3 | Nitrobenzene | 5.0 | Ū |
| 78-59-1 | Isophorone | 5.0 | Ū |
| 88-75-5 | 2-Nitrophenol | 5.0 | Ū |
| 105-67-9 | 2,4-Dimethylphenol | 5.0 | Ü |
| 111-91-1 | Bis(2-chloroethoxy)methane | 5.0 | Ū |
| 120-83-2 | 2,4-Dichlorophenol | 5.0 | Ū |
| 91-20-3 | Naphthalene | 5.0 | Ū. |
| 106-47-8 | 4-Chloroaniline | 5.0 | Ü |
| 87-68-3 | Hexachlorobutadiene | 5.0 | Ü |
| 105-60-2 | Caprolactam | 5.0 | Ū |
| 59-50-7 | 4-Chloro-3-methylphenol | 5.0 | IJ |
| 91-57-6 | 2-Methylnaphthalene | 5.0 | U |
| 77-47-4 | Hexachlorocyclopentadiene | 5.0 | Ū |
| 88-06-2 | 2,4,6-Trichlorophenol | 5.0 | U |
| 95-95-4 | 2,4,5-Trichlorophenol | 5.0 | Ū |
| 92-52-4 | 1,1'-Biphenyl | 5.0 | Ū |
| 91-58-7 | 2-Chloronaphthalene | 5.0 | υ |
| 88-74-4 | 2-Nitroaniline | 10 | Ų |
| 131-11-3 | Dimethylphthalate | 5.0 | . U |
| 606-20-2 | 2,6-Dinitrotoluene | 5.0 | Ū |
| 208-96-8 | Acenaphthylene | 5.0 | Ū |
| 99-09-2 | 3-Nitroaniline . | 10 | U |
| 83-32-9 | Acenaphthene | 5.0 | Ü |

Use first run

A 8/28/00

1E - FORM I SV-2 SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

| 7 73 | 3W1 | RX | |
|-------------|-----|----|--|
|-------------|-----|----|--|

| Lab Name: DataChem Laboratories, Inc. | Contract: EP-W-05-026 |
|------------------------------------------|----------------------------------|
| Lab Code: DATAC Case No.: 35417 Mod. Ref | No.: SDG No.: <u>J73T9</u> |
| Matrix: (SOIL/SED/WATER) WATER | Lab Sample ID: 06C02711R1 |
| Sample wt/vol: 1000 (g/mL) mL | Lab File ID: RNS10C11 |
| Level: (LOW/MED) LOW | Extraction: (Type) CONT |
| % Moisture: Decanted: (Y/N) N | Date Received: 06/08/2006 |
| Concentrated Extract Volume: 1000 (uL) | Date Extracted: 06/23/2006 |
| Injection Volume: 1.0 (uL) GPC Factor: | Date Analyzed: <u>06/26/2006</u> |
| GPC Cleanup: (Y/N) N pH: | Dilution Factor: 1.0 |

| | | CONCENTRATION UNITS: | |
|-----------|------------------------------|-----------------------------|-----|
| CAS NO. | COMPOUND | (ug/L or ug/kg) <u>ua/L</u> | Q |
| 51-28-5 | 2,4-Dinitrophenol | 10 | Ü |
| 100-02-7 | 4-Nitrophenol | 10 | . Ŋ |
| 132-64-9 | Dibenzofuran | 5.0 | Ü |
| 121-14-2 | 2,4-Dinitrotoluene | 5.0 | Ü |
| 84-66-2 | Diethylphthalate | 5.0 | Ü |
| 86-73-7 | Fluorene | 5.0 | Ū |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 5.0 | Ü |
| 100-01-6 | 4-Nitroaniline | 10 | Ü |
| 534-52-1 | 4,6-Dinitro-2-methylphenol | 10 | Ū |
| 86-30-6 | N-Nitrosodiphenylamine; | 5.0 | Ū |
| 95-94-3 | 1,2,4,5-Tetrachlorobenzene | 5.0 | Ü |
| 101-55-3 | 4-Bromophenyl-phenylether | 5.0 | Ū |
| 118-74-1 | Hexachlorobenzene | 5.0 | Ū |
| 1912-24-9 | Atrazine | 5.0 | Ū |
| 87-86-5 | Pentachlorophenol | 10 | Ū |
| 85-01-8 | Phenanthrene | 5.0 | Ü |
| 120-12-7 | Anthracene . | 5.0 | Ū |
| 86-74-8 | Carbazole | 5.0 | Ü |
| 84-74-2 | Di-n-butylphthalate | 5.0 | Ū |
| 206-44-0 | Fluoranthene | 5.0 | Ü |
| 129-00-0 | Pyrene | 5.0 | Ū |
| 85-68-7 | Butylbenzylphthalate | 5.0 | Ū |
| 91-94-1 | 3,3'-Dichlorobenzidine | 5.0 | Ū |
| 56-55-3 | Benzo(a)anthracene | 5.0 | Ü |
| 218-01-9 | Chrysene | 5.0 | Ü |
| 117-81-7 | Bis(2-ethylnexyl)phthalate | 5.0 2-2 | 2B |
| 117-84-0 | Di-n-octylphthalate | 5.0 | Ū |
| 205-99-2 | Benzo(b) fluoranthene | 5.0 | U |
| 207-08-9 | Benzo(k)fluoranthene | 5.0 | Ü |
| 50-32-8 | Benzo(a)pyrene | 5.0 | Ū |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 5.0 | Ū |
| 53-70-3 | Dibenzo(a,h)anthracene | 5.0 | Ü |
| 191-24-2 | Benzo(g,h,i)perylene | 5.0 | Ū |
| 58-90-2 | 2, 3, 4, 6-Tetrachlorophenol | 5.0 | Ū |

¹Cannot be separated from Diphenylamine.

use first run

6/2013) SOM01.1 (5/2003)

1K - FORM I SV-TIC

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

| EPA | SAMPLE | NO |
|---------|--------|-----|
| جہ عاصد | | 140 |

J73W1RX

| | Lab Name: <u>Data</u> | Chem Laboratories, Inc. | Contrac | ct: <u>EP-W</u> | -05-026 | | | - |
|----------|-----------------------|---------------------------------------|--------------|-------------------|----------------------|-------------|----------|----------|
| | Lab Code: DATA | .C , Case No.: <u>35417</u> Mod. R | ef No.: _ | | SDG No.: <u>J731</u> | 19 | | _ |
| | Matrix: (SOIL/ | SED/WATER) WATER | Lab Sam | mple ID: | 06C02711R1 | | | _ |
| | Sample wt/vol: | 1000 (g/mL) mL | Lab Fil | le ID: <u>R</u> l | NS10Cll | | | |
| | Level: (LOW/ME | ID) LOW | .Extract | ion: (T | ype) <u>CONT</u> | | | |
| | % Moisture: | Decanted: (Y/N) N | | | | | | _ |
| | | Extract Volume: 1000 (uL) | | | | | | - |
| | | nme: 1.0 (uL) GPC Factor: | | | | | | - |
| | | (Y/N) N DH: | | | | | | - |
| | | | 2214010 | | 2.0 | | | - I . |
| | CONCENTRATION | UNITS: (ug/L or ug/kg) ug/L | • | | | | BP | s/2 |
| | CAS NUMBER | COMPOUND NAME | | RT | EST. CONC | | Q | ĺ |
| 01 | | Unknown oxyhydrocarbon | | 4.53 | | 11 | JΒ |] |
| 02 | | Polycyclic hydrocarbon | | 18.88 | L | 20 | JB |] |
| 03 | | Polycyclic hydrocarbon | | 24.24 | | 25 | JB · | _ |
| 04 | | | | | | | | 4 |
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²EPA-designated Registry Number.

Total Alkanes

E9667962

B 8/25/06

SOM01.1 (5/304)

N/A

1D - FORM I SV-1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

| EPA | SAMPLE | NO. |
|-----|--------|-----|
| | J73W2 | |

| Lab Name: DataChem Laboratories, Inc. | Contract: EP-W-05-026 |
|--------------------------------------------|--------------------------------------|
| Lab Code: DATAC Case No.: 35417 Mod. Ref | No.: SDG No.: <u>J</u> 73 <u>T</u> 9 |
| Matrix: (SOIL/SED/WATER) SOIL | Lab Sample ID: <u>06C02712</u> |
| Sample wt/vol: 30.0 (g/mL) g | Lab File ID: RNJ15C12 |
| Level: (LOW/MED) LOW | Extraction: (Type) SONC |
| % Moisture: 25 Decanted: (Y/N) N | Date Received: 06/08/2006 |
| Concentrated Extract Volume: 500 (uL) | Date Extracted: <u>06/14/2006</u> |
| Injection Volume: 1.0 (uL) GPC Factor: 2.0 | Date Analyzed: 06/21/2006 |
| GPC Cleanup: (Y/N) Y pH: 7.1 | Dilution Factor: 1.0 |

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg | Q |
|------------------|------------------------------|--------------------------------------------|-----|
| 100-52-7 | Benzaldenyde | 230 | Ü |
| 108-95-2 | Phenol | 230 | Ü |
| 111-44-4 | Bis(2-chloroethyl)ether | 230 | Ū |
| 95-57-8 | 2-Chiorophenol | 230 | Ü . |
| 95-48-7 | 2-Methylphenol | 230 | Ü |
| 108-60-1 | 2,2'-Oxybis(1-chloropropane) | 230 | Ü |
| 98-86-2 | Acetophenone | 230 | Ū |
| 106-44-5 | 4-Methylphenol | 230 | U |
| 621-64-7 | N-Nitroso-di-n-propylamine | 230 | Ü |
| 67-72-1 | Hexachloroethane | 230 | Ū |
| 98-95-3 | Nitrobenzene | 230 | U |
| 78-59-1 | Isophorone | 230 | Ū |
| 88-75-5 | 2-Nitrophenol | 230 | Ü |
| 105-67-9 | 2,4-Dimethylphenol | 230 | Ū |
| 111-91-1 | Bis(2-chloroethoxy)methane | 230 | Ū |
| 120-83-2 | 2,4-Dichlorophenol | 230 | ט |
| 91-20-3 | Naphthalene | 230 | Ü |
| 106-47-8 | 4-Chloroaniline | 230 | Ü |
| 87 - 68-3 | Hexachlorobutadiene | 230 | Ū |
| 105-60-2 | Caprolactam | 110 | JQ |
| 59-50-7 | 4-Chloro-3-methylphenol | 230 | . ប |
| 91-57-6 | 2-Methylnaphthalene | 230 | Ū |
| 77-47-4 | Hexachlorocyclopentadiene | 230 | Ü |
| 88-06-2 | 2,4,6-Trichlorophenol | 230 | Ū |
| 95-95-4 | 2,4,5-Trichlorophenol | . 230 | Ū |
| 92-52-4 | 1,1'-Biphenyl | 230 | Ü |
| 91-58-7 | 2-Chloronaphthalene | 230 | Ü |
| 88-74-4 | 2-Nitroaniline | . 440 | Ū |
| 131-11-3 | Dimethylphthalate | 230 | Ü |
| 606-20-2 | 2,6-Dinitrotoluene | 230 | Ü |
| 208-96-8 | Acenaphthylene | 230 | U |
| 99-09-2 | 3-Nitroaniline | 440 | U |
| 83-32-9 | Acenaphthene | 230 | Ū |

1E - FORM I SV-2 SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

| J7 | 3W2 | |
|----|-----|--|
| | ٠ـ | |

| Lab Name: DataChem Laboratories, Inc. | Contract: EP-W-05-026 |
|--------------------------------------------|----------------------------|
| Lab Code: DATAC Case No.: 35417 Mod. Ref | No.: SDG No.: <u>J73T9</u> |
| Matrix: (SOIL/SED/WATER) SOIL | Lab Sample ID: 06C02712 |
| Sample wt/vol: 30.0 (g/mL) g | Lab File ID: RNJ15C12 |
| Level: (LOW/MED) LOW | Extraction: (Type) SONC |
| % Moisture: 25 Decanted: (Y/N) N | Date Received: 06/08/2006 |
| Concentrated Extract Volume: 500 (uL) | Date Extracted: 06/14/2006 |
| Injection Volume: 1.0 (uL) GPC Factor: 2.0 | Date Analyzed: 06/21/2006 |
| GPC Cleanup: (Y/N) Y pH: 7.1 | Dilution Factor: 1.0 |

| | | CONCENTRATION UNITS: | |
|-----------|-------------------------------------|-----------------------|------|
| CAS NO. | COMPOUND | (ug/L or ug/kg) ug/kg | Q |
| 51-28-5 | 2,4-Dinitrophenol | 440 | Ŭ |
| 100-02-7 | 4-Nitrophenol | 440 | Ū :· |
| 132-64-9 | Dibenzofuran | 230 | U |
| 121-14-2 | 2,4-Dinitrotoluene | 230 | Ū |
| 84-66-2 | Diethylphthalate | 230 | Ū |
| 86-73-7 | Fluorene | . 230 | Ū : |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 230 | Ü n |
| 100-01-6 | 4-Nitroaniline | 440 | Ü · |
| 534-52-1 | 4,6-Dinitro-2-methylphenol | . 440 | U - |
| 86-30-6 | N-Nitrosodiphenylamine ¹ | 230 | Ü |
| 95-94-3 | 1,2,4,5-Tetrachlorobenzene | 230 | Ü |
| 101-55-3 | 4-Bromophenyl-phenylether | 230 | Ū |
| 118-74-1 | Hexachlorobenzene | 230 | Ū |
| 1912-24-9 | Atrazine | 230 | Ü . |
| 87-86-5 | Pentachlorophenol | 440 | Ü |
| 85-01-8 | Phenanthrene | 230 | Ü |
| 120-12-7 | Anthracene | 230 | Ū |
| 86-74-8 | Carbazole | 230 | Ü |
| 84-74-2 | Di-n-butylphthalate | 230 | Ü |
| 206-44-0 | Fluoranthene | 230 | Ū |
| 129-00-0 | Pyrene | 230 | Ū |
| 85-68-7 | Butylbenzylphthalate | 230 | Ü |
| 91-94-1 | 3,3'-Dichlorobenzidine | 230 | Ü |
| 56-55-3 | Benzo(a)anthracene | 230 | Ū |
| 218-01-9 | Chrysene | 230 | Ü |
| 117-81-7 | Bis(2-ethylhexyl)phthalate | 230 210 | ZBU |
| 117-84-0 | Di-n-octylphthalate | 230 | Ū |
| 205-99-2 | Benzo(b) fluoranthene | 230 | Ū |
| 207-08-9 | Benzo(k)fluoranthene | 230 | Ü |
| 50-32-8 | Benzo(a)pyrene | 230 | Ū |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 230 | Ü |
| 53-70-3 | Dibenzo(a, h) anthracene | 230 | Ū |
| 191-24-2 | Benzo(g,h,i)perylene | 230 | Ü |
| 58-90-2 | 2, 3, 4, 6-Tetrachlorophenol | 230 | Ū |

¹Cannot be separated from Diphenylamine

1K - FORM I SV-TIC

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

J73W2

| Lab Name: DataChem Laboratories, Inc. | Contract: EP-W-05-026 |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|
| Lab Code: DATAC Case No.: 35417 Mod. Ref | No.: SDG No.: <u>J73T9</u> |
| Matrix: (SOIL/SED/WATER) SOIL | Lab Sample ID: 06C02712 |
| Sample wt/vol: 30.0 (g/mL) g | Lap File ID: RNJ15C12 |
| Level: (LOW/MED) LOW | Extraction: (Type) SONC |
| % Moisture: <u>25</u> Decanted: (Y/N) <u>N</u> | Date Received: 06/08/2006 |
| Concentrated Extract Volume: 500 (uL) | Date Extracted: 06/14/2006 |
| Injection Volume: 1.0 (uL) GPC Factor: 2.0 | Date Analyzed: 06/21/2006 |
| GPC Cleanup: (Y/N) Y pH: 7.1 | Dilution Factor: 1.0 |
| CONCENTED DETON THIS ECONOMIC CONCENTRAL CON | |

CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|------------------|------------------------|-------------|-----------------|---|
| ì | Polycyclic hydrocarbon | 18.92 | 180 | ĩ |
| 2 | Polycyclic hydrocarbon | 24.28 | 140 | J |
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| | | | | |
| E9667962 | Total Alkanes | N/A | | |

2EPA-designated Registry Number.

tha/28/04

1D - FORM I SV-1 SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

| Lab Name: DataChem Laboratories, Inc. | Contract: EP-W-05-026 |
|----------------------------------------|-------------------------------------|
| Lab Code: DATAC Case No.: 35417 Mod. | Ref No.: SDG No.: <u>J73T9</u> |
| Matrix: (SOIL/SED/WATER) WATER | Lab Sample ID: 06C02713 |
| Sample wt/vol: 1000 (g/mL) mL | Lab File ID: RNG06C13 |
| Level: (LOW/MED) LOW | Extraction: (Type) CONT |
| % Moisture: Decanted: (Y/N) | Date Received: 06/08/2006 |
| Concentrated Extract Volume: 1000 (uL |) Date Extracted: <u>06/13/2006</u> |
| Injection Volume: 1.0 (uL) GPC Factor: | Date Analyzed: 06/19/2006 |
| GPC Cleanup: (Y/N) N pH: | Dilution Factor: 1.0 |

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/kg) ug/L | Q |
|----------|------------------------------|-------------------------------------------|-----|
| 100-52-7 | Benzaldehyde | 5.0 | Ü |
| 108-95-2 | Phenol | 5.0 | Ū |
| 111-44-4 | Bis(2-chloroethyl)ether | 5.0 | υ |
| 95-57-8 | 2-Chlorophenol | 5.0 | Ū |
| 95-48-7 | 2-Methylphenol | 5.0 | Ü |
| 108-60-1 | 2,2'-Oxybis(1-chloropropane) | 5.0 | Ū |
| 98-86-2 | Acetophenone | 5.0 | Ūτ |
| 106-44-5 | 4-Methylphenol | 5.0 | Ū · |
| 621-64-7 | N-Nitroso-di-n-propylamine | 5.0 | Ü. |
| 67-72-1 | Hexachloroethane | 5.0 | Ū., |
| 98-95-3 | Nitrobenzene | 5.0 | Ū |
| 78-59-1 | Isophorone | 5.0 | Ū |
| 88-75-5 | 2-Nitrophenol | 5.0 | Ū |
| 105-67-9 | 2,4-Dimethylphenol | 5.0 | Ü |
| 111-91-1 | Bis(2-chloroethoxy)methane | 5.0 | Ū. |
| 120-83-2 | 2,4-Dichlorophenol | 5.0 | Ū |
| 91-20-3 | Naphthalene | 5.0 | υ |
| 106-47-8 | 4-Chloroaniline | 5.0 | Ū |
| 87-68-3 | Hexachlorobutadiene | 5.0 | Ū |
| 105-60-2 | Caprolactam | 5.0 | Ū |
| 59-50-7 | 4-Chloro-3-methylphenol | 5.0 | Ū |
| 91-57-6 | 2-Methylnaphthalene | 5.0 | Ū |
| 77-47-4 | Hexachlorocyclopentadiene | 5.0 | Ü |
| 88-06-2 | 2,4,6-Trichlorophenol | 5.0 | Ū |
| 95-95-4 | 2,4,5-Trichlorophenol | 5.0 | Ū |
| 92-52-4 | 1,1'-Biphenyl | 5.0 | U |
| 91-58-7 | 2-Chloronaphthalene | 5.0 | ΰ |
| 88-74-4 | 2-Nitroaniline | 10 | Ū |
| 131-11-3 | Dimethylphthalate | 5.0 | U |
| 606-20-2 | 2,6-Dinitrotoluene | 5.0 | Ü |
| 208-96-8 | Acenaphthylene | 5.0 | Ū |
| 99-09-2 | 3-Nitroaniline | 10 | Ü |
| 83-32-9 | Acenaphthene | 5.0 | Ü |

Use this run

18/28/06

1E - FORM I SV-2 SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

| J73W3 | |
|-------|--|
| | |

| Lab Name: DataChem Laboratories, Inc. | Contract: EP-W-05-026 |
|------------------------------------------|----------------------------|
| Lab Code: DATAC Case No.: 35417 Mod. Ref | No.: SDG No.: <u>J73T9</u> |
| Matrix: (SOIL/SED/WATER) WATER | Lab Sample ID: 06C02713 |
| Sample wt/vol: 1000 (g/mL) mL | Lab File ID: RNG06C13 |
| Level: (LOW/MED) LOW | Extraction: (Type) CONT |
| % Moisture: Decanted: (Y/N) | Date Received: 06/08/2006 |
| Concentrated Extract Volume: 1000 (uL) | Date Extracted: 06/13/2006 |
| Injection Volume: 1.0 (uL) GPC Factor: | Date Analyzed: 06/19/2006 |
| GPC Cleanup: (Y/N) N pH: | Dilution Factor: 1.0 |

| | | CONCENTRATION UNITS: | _ |
|-----------|-------------------------------------|----------------------|----|
| CAS NO. | COMPOUND | (ug/L or ug/kg) ug/L | Q |
| 51-28-5 | 2,4-Dinitrophenol | 10 | U |
| 100-02-7 | 4-Nitrophenol | 10 | Ü |
| 132-64-9 | Dibenzofuran | 5.0 | Ü |
| 121-14-2 | 2,4-Dinitrotoluene | 5.0 | Ü |
| 84-66-2 | Diethylphthalate | 5.0 | Ū |
| 86-73-7 | Fluorene | . 5.0 | Ū |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 5.0 | Ü |
| 100-01-6 | 4-Nitroaniline | 10 | Ü |
| 534-52-1 | 4,6-Dinitro-2-methylphenol | 10 | Ū |
| 86-30-6 | N-Nitrosodiphenylamine ¹ | 5.0 | Ū |
| 95-94-3 | 1,2,4,5-Tetrachlorobenzene | 5.0 | Ū |
| 101-55-3 | 4-Bromophenyl-phenylether | 5.0 | Ü |
| 118-74-1 | Hexachlorobenzene | 5.0 | Ū |
| 1912-24-9 | Atrazine | 5.0 | Ū |
| 87-86-5 | Pentachlorophenol | _ 10 | Ū |
| 85-01-8 | Phenanthrene | 5.0 | Ü |
| 120-12-7 | Anthracene | 5.0 | Ū |
| 86-74-8 | Carbazole | 5.0 | ΰ |
| 84-74-2 | Di-n-butylphthalate | 0.57 | J(|
| 206-44-0 | Fluoranthene | 5.0 | U |
| 129-00-0 | Pyrene | 5.0 | Ū |
| 85-68-7 | Butylbenzylphthalate | 3.1 | JC |
| 91-94-1 | 3,3'-Dichlorobenzidine | 5.0 | Ü |
| 56-55-3 | Benzo(a)anthracene | 5.0 | Ū |
| 218-01-9 | Chrysene | 5.0 | Ü |
| 117-81-7 | Bis(2-ethylhexyl)phthalate | 5.0 0.60 | JB |
| 117-84-0 | Di-n-octylphthalate | 5.0 | U |
| 205-99-2 | Benzo(b) fluoranthene | 5.0 | υ |
| 207-08-9 | Benzo(k) fluoranthene | 5.0 | Ü |
| 50-32-8 | Benzo(a)pyrene | 5.0 | Ū |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 5.0 | U |
| 53-70-3 | Dibenzo(a,h)anthracene | 5.0 | Ü |
| 191-24-2 | Benzo(g,h,i)perylene | 5.0 | Ü |
| 58-90-2 | 2,3,4,6-Tetrachlorophenol | 5.0 | Ū |

¹Cannot be separated from Diphenylamine

Bla/25/4

1K - FORM I SV-TIC

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

| EPA | SAMPLE | NO. |
|-----|--------|-----|
| | J73W3 | |

| Lab Name: DataChem Laboratories, Inc. | Contract: EP-W-05-026 |
|------------------------------------------|----------------------------------|
| Lab Code: DATAC Case No.: 35417 Mod. Ref | No.: SDG No.: <u>J73T9</u> |
| Matrix: (SOIL/SED/WATER) WATER | Lab Sample ID: 06C02713 |
| Sample wt/vol: 1000 (g/mL) mL | Lab File ID: RNG06C13 |
| Level: (LOW/MED) LOW | Extraction: (Type) CONT |
| % Moisture: Decanted: (Y/N) | Date Received: <u>06/08/2006</u> |
| Concentrated Extract Volume: 1000 (uL) | Date Extracted: 06/13/2006 |
| Injection Volume: 1.0 (uL) GPC Factor: | Date Analyzed: <u>06/19/2006</u> |
| GPC Cleanup: (Y/N) N pH: | Dilution Factor: 1.0 |

CONCENTRATION UNITS: (ug/L or ug/kg) ug/L

Strzloc

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONE. | Q |
|------|------------|--------------------------|-------|------------|-------|
| 01 | | Unsaturated Hydrocarbon | 4.10 | 19 | JB |
| 02 | | Unsaturated Hydrocarbon | 16 | 2.8 | JΒ |
| 03 | 321-60-8 | 1,1'-Biphenyl, 2-flucro- | 7.72 | 7.8 | JNB " |
| 04 | 118-79-6 | Phenol, 2,4,6-tribromo- | 10.24 | 50 | JNB |
| 05 | 1718-51-0 | p-Terphenyl-d14 | 14.28 | 48 | JNB |
| 06 | | Polycyclie nydrocarbon | 18.91 | 4.2 | JB. |
| 07 | | Polycyclic hydrocarbon | 24.31 | 4.7 | JB,, |
| 08 | | | | | ٠. |
| 09 | | | | | |
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| 30 [| | | | | |
| ſ | E9667962 | Total Alkanes | N/A | | |

²EPA-designated Registry Number.

8 (28 of

1D - FORM I SV-1 SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

J73W3RX

| Lab Name: DataChem Laboratories, Inc. | Contract: EP-W-05-026 |
|------------------------------------------------------------------|-----------------------------------|
| Lab Code: DATAC Case No.: 35417 Mod. Ref | No.: SDG No.: <u>J73T9</u> |
| Matrix: (SOIL/SED/WATER) WATER | Lab Sample ID: 06C02713R1 |
| Sample wt/vol: $\underline{1000}$ (g/mL) $\underline{\text{mL}}$ | Lab File ID: RNSO6C13 |
| Level: (LOW/MED) LOW | Extraction: (Type) CONT |
| % Moisture: Decanted: (Y/N) N | Date Received: 06/08/2006 |
| Concentrated Extract Volume: 1000 (uL) | Date Extracted: <u>06/20/2006</u> |
| Injection Volume: 1.0 (uL) GPC Factor: | Date Analyzed: 06/26/2006 |
| GPC Cleanup: (Y/N) N pH: | Dilution Factor: 1.0 |

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/kg) ug/L | Q |
|----------|------------------------------|-------------------------------------------|----|
| 100-52-7 | Benzaldehyde | 5.0 | Ū |
| 108-95-2 | Phenol | 5.0 | Ū |
| 111-44-4 | Bis(2-chloroethyl)ether | 5.0 | Ū |
| 95-57-8 | 2-Chlorophenol | 5.0 | Ü |
| 95-48-7 | 2-Methylphenol | . 5.0 | Ū |
| 108-60-1 | 2,2'-Oxybis(1-chloropropane) | 5.0 | Ū |
| 98-86-2 | Acetophenone | 5.0 | Ū |
| 106-44-5 | 4-Methylphenol | 5.0 | Ü |
| 621-64-7 | N-Nitroso-di-n-propylamine | 5.0 | Ü |
| 67-72-1 | Hexachloroethane | 5.0 | Ü |
| 98-95-3 | Nitrobenzene | 5.0 | Ü |
| 78-59-1 | Isophorone | 5.0 | Ų |
| 88-75-5 | 2-Nitrophenol | 5.0 | Ü |
| 105-67-9 | . 2,4-Dimethylphenol | 5.0 | Ū |
| 111-91-1 | Bis(2-chloroethoxy)methane | 5.0 | Ü |
| 120-83-2 | 2,4-Dichlorophenol | 5.0 | υ |
| 91-20-3 | Naphthalene | 5.0 | Ū |
| 106-47-8 | 4-Chloroaniline | 5.0 | Ü |
| 87-68-3 | Hexachlorobutadiene | 5.0 | Ū |
| 105-60-2 | Caprolactam | 5.0 | Ŋ. |
| 59-50-7 | 4-Chloro-3-methylphenol | 5.0 | Ū |
| 91-57-6 | 2-Methylnaphthalene | 5.0 | ΰ |
| 77-47-4 | Hexachlorocyclopentadiene | 5.0 | Ū |
| 88-06-2 | 2,4,6-Trichlorophenol | 5.0 | Ū |
| 95-95-4 | 2,4,5-Trichlorophenol | 5.0 | Ū |
| 92-52-4 | 1,1'-Biphenyl | 5.0 | Ū |
| 91-58-7 | 2-Chloronaphthalene | 5.0 | Ū |
| 88-74-4 | 2-Nitroaniline | 10 | Ü |
| 131-11-3 | Dimethylphthalate | 5.0 | Ü |
| 606-20-2 | 2,6-Dinitrotoluene | 5.0 | ΰ |
| 208-96-8 | Acenaphthylene | 5.0 | Ū |
| 99-09-2 | 3-Nitroaniline | 10 | Ū |
| 83-32-9 | Acenaphthene | 5.0 | Ū |

Use first run

Bl 8/28/06

1E - FORM I SV-2 SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

| J73W3RX | |
|---------|--|
|---------|--|

| Lab Name: DataChem Laboratories, Inc. | Contract: EP-W-05-026 |
|------------------------------------------------------------------|-----------------------------------|
| Lab Code: DATAC Case No.: 35417 Mod. Ref | No.: SDG No.: <u>J73T9</u> |
| Matrix: (SOIL/SED/WATER) WATER | Lab Sample ID: 06C02713R1 |
| Sample wt/vol: $\underline{1000}$ (g/mL) $\underline{\text{mL}}$ | Lab File ID: RNSO6C13 |
| Level: (LOW/MED) LOW | Extraction: (Type) CONT |
| % Moisture: Decanted: (Y/N) N | Date Received: <u>06/08/2006</u> |
| Concentrated Extract Volume: 1000 (uL) | Date Extracted: <u>06/20/2006</u> |
| Injection Volume: 1.0 (uL) GPC Factor: | Date Analyzed: 06/26/2006 |
| GPC Cleanup: (Y/N) N pH: | Dilution Factor: 1.0 |

| | | CONCENTRATION UNITS: | |
|------------|----------------------------|----------------------|------------------|
| CAS NO. | COMPOUND | (ug/L or ug/kg) ug/L | Q |
| 51-28-5 | 2,4-Dinitrophenol | 10 | Ū |
| 100-02-7 | 4-Nitrophenol | 10 | Ū. |
| 132-64-9 | Dibenzofuran | 5.0 | Ü |
| 121-14-2 | 2,4-Dinitrotoluene | 5.0 | Ü - |
| 84-66-2 | Diethylphthalate | 5.0 | Ū |
| 86-73-7 | Fluorene | 5.0 | Ü., |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 5.0 | Ü, |
| 100-01-6 | 4-Nitroaniline | 10 | U, |
| 534-52-1 | 4,6-Dinitro-2-methylphenol | 10 | Ū _. . |
| 86-30-6 | N-Nitrosodiphenylamine 1 | 5.0 | Ü |
| 95-94-3 | 1,2,4,5-Tetrachlorobenzene | 5.0 | Ü |
| 101-55-3 | 4-Bromophenyl-phenylether | 5.0 | Ü |
| 118-74-1 | Hexachlorobenzene | 5.0 | Ü |
| 1912-24-9 | Atrazine | 5.0 | Ü |
| 87-86-5 | Pentachlorophenol | 10 | Ü |
| 85-01-8 | Phenanthrene | 5.0 | Ū |
| 120-12-7 | Anthracene | 5.0 | Ū |
| 86-74-8 | Carbazole | 5.0 | Ū |
| 84-74-2 | Di-n-butylphthalate | 5.0 | Ü |
| 206-44-0 | Fluoranthene | 5.0 | Ü |
| 129-00-0 | Pyrene | 5.0 | U |
| 85-68-7 | Butylbenzylphthalate | 5.0 | U |
| 91-94-1 | 3,3'-Dichlorobenzidine | 5.0 | Ū |
| 56-55-3 | Benzo(a)anthracene | 5.0 | U |
| 218-01-9 | Chrysene | 5.0 | U |
| 117-81-7 | Bis(2-ethylhexyl)phthalate | 5.0 2.0 | JEU |
| 117-84-0 | Di-n-octylphthalate | 5.0 | Ū |
| 205-99-2 | Benzo(b) fluoranthene | 5.0 | Ū |
| 207-08-9 . | Benzo(k)fluoranthene | 5.0 | U |
| 50-32-8 | Benzo(a)pyrene | 5.0 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 5.0 | Ū |
| 53-70-3 | Dibenzo(a,h)anthracene | 5.0 | ΰ |
| 191-24-2 | Benzo(g,h,i)perylene | 5.0 | U |
| 58-90-2 | 2,3,4,6-Tetrachlorophenol | 5.0 | Ü |

¹Cannot be separated from Diphenylamine

use first run.

15/2/200 SOM01.1 (5/2037)

1K - FORM I SV-TIC SEMIVÓLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

| EPA | SAMPLE | NO. |
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| | | |

| マコ つたさつ わさん | |
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| XW | |

| Lab Name: DataChem Laboratories, Inc. | Contract: EP-W-05-026 |
|------------------------------------------------------------------|----------------------------|
| Lab Code: DATAC Case No.: 35417 Mod. Ref | No.: SDG No.: <u>J73T9</u> |
| Matrix: (SOIL/SED/WATER) WATER | Lab Sample ID: 06C02713R1 |
| Sample wt/vol: $\underline{1000}$ (g/mL) $\underline{\text{mL}}$ | Lab File ID: RNSO6C13 |
| Level: (LOW/MED) LOW | Extraction: (Type) CONT |
| <pre>% Moisture: Decanted: (Y/N) N</pre> | Date Received: 06/08/2006 |
| Concentrated Extract Volume: 1000 (uL) | Date Extracted: 06/20/2006 |
| Injection Volume: 1.0 (uL) GPC Factor: | Date Analyzed: 06/26/2006 |
| GPC Cleanup: (Y/N) N pH: | Dilution Factor: 1.0 |
| | |

CONCENTRATION UNITS: (ug/L or ug/kg) ug/L

| | CAS NUMBER | COMPOUND NAME | RT | EST. | CONC. | Q | 7 |
|------|------------|-------------------------|-------|----------|-------|----|---------|
| 01 | | Unsaturated Hydrocarbon | 3.95 | | 5.4 | J | $]_{i}$ |
| 02 | | Unknown oxyhydrocarbon | 4.53 | | | JB | - 2 |
| . 03 | 4-7-7FF | Polycyclic hydrocarbon | 18:87 | <u> </u> | 17 | JΒ |] |
| 04 | | Polycyclic hydrocarbon | 24.23 | | 26 | JB |] |
| 05 | | · · | | | | |] |
| 06 | | | | | | |] |
| 07 | | | | | | |] |
| 08 | | | | | | |] |
| 09 | | | | | | | |
| 10 | | | | | | |] |
| 11 | | | | | | |] |
| 12 | | | | | | |] |
| 13 | | | | | | |] |
| 14 | | | | | | |] |
| 15 | | | | | | |] |
| 16 | | | | | | |] |
| 17 | | | | | | |] |
| 18 | | | | | | |] |
| 19 | | | | | | |] |
| 20 | | | | | | |] |
| 21 | | | | | | | |
| 22 | | | | | | |] |
| 23 | | | | | | | |
| 24 | | | | | | |] |
| 25 | | | | | | |] |
| 26 | | | | | | |] |
| 27 | | | | | | | |
| 28 | | | | | | |] |
| 29 | | | | | | | |
| 30 | | | | | | | |
| | E9667962 | Total Alkanes | N/A | | 19 | J | 1 |

²EPA-designated Registry Number.

BP 8/28/06

SOM01.1 (5/20308)

8022 ls

EPA SAMPLE NO.

| | _ | |
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| | | |
| 77 24 | 0.0 | |
| J731 | 5 | |
| | | |

| Lab Name: Dat | taChem Laboratories, Inc. | Contract: EP-W-05-026 |
|---------------|------------------------------|----------------------------------------|
| Lab Code: DAT | TAC Case No.: 35417 Mod. Ref | No.: SDG No.: <u>J73T9</u> |
| Matrix: (SOI | L/SED/WATER) WATER | Lab Sample ID: 06C02709 |
| Sample wt/vo | l: 1000 (g/mL) mL | Lab File ID: 21060625A050,21060625B050 |
| % Moisture: | Decanted: (Y/N) | Date Received: 06/08/2006 |
| | (Type) SEPF | Date Extracted: 06/13/2006 |
| | Extract Volume: 10000 (uL) | |
| | lume: 2.0 (uL) GPC Factor: | |
| | - | |
| GPC Cleanup: | (Y/N) <u>N</u> pH: | Sulfur Cleanup: (Y/N) N |
| | | CONCENTRATION UNITS: |
| CAS NO. | COMPOUND | (ug/L or ug/kg) ug/L Q |
| 319-84-6 | alpha-BHC | 0.050 ט |
| 319-85-7 | beta-BHC. | 0.050 U |
| 319-86-8- | delta-BHC- | 0.050 ט |
| 58-89-9 | gamma-BHC (Lindane) | 0.0014 J © |
| 76-44-8 | Heptachlor | 0.0025 J Q |
| 309-00-2 | Aldrin | 0.050 |
| 1024-57-3 | Heptachlor epoxide | 0.050 U. |
| 959-98-8 | Endosulfan I | 0.050 U |
| 60-57-1 | Dieldrin | ט (0.10 |
| 72-55-9 | 4,4'-DDE | 0.10 D-0020 Je U |
| 72-20-8 | Endrin | 0.0016 5 |
| 33213-65-9 | Endosulfan II | 0.10 A-019 2FU |
| 72-54-8 | 4,4'-DDD | 0.10 U |
| 1031-07-8 | Endosulfan sulfate | 0.0049 JZQ |
| 50-29-3 | 4,4'-DDT | 0.10 2.0030 250 |
| 72-43-5 | Methoxychlor | 0.50 0.20 |
| 53494-70-5 | Endrin ketone | 0.10 U |
| 7421-93-4 | Endrin aldehyde | u معتد المناف الماره |
| 5103-71-9 | alpha-Chlordane | 0.050 U |
| 5103-74-2 | gamma-Chlordane | 0.050 U |

8001-35-2

Toxaphene

BP 8/23/660

5.0

EPA SAMPLE NO.

| J73W0 | |
|-------|--|

| Lab Name: DataChem Laboratories, Inc. | Contract: EP-W-05-026 |
|--------------------------------------------|-----------------------------------------------|
| Lab Code: DATAC Case No.: 35417 Mod. Ref | No.: SDG No.: <u>J73T9</u> |
| Matrix: (SOIL/SED/WATER) SOIL | Lab Sample ID: 06C02710 |
| Sample wt/vol: 30.0 (g/mL) g | Lab File ID: <u>21060625A057,21060625B057</u> |
| % Moisture: 14 Decanted: (Y/N) N | Date Received: 06/08/2006 |
| Extraction: (Type) SONC | Date Extracted: 06/15/2006 |
| Concentrated Extract Volume: 10000 (uL) | Date Analyzed: 06/26/2006 |
| Injection Volume: 2.0 (uL) GPC Factor: 1.0 | Dilution Factor: 1.0 |
| GPC Cleanup: (Y/N) Y pH: 6.8 | Sulfur Cleanup: (Y/N) N |

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg | Q |
|-------------------|---------------------|--------------------------------------------|----------------|
| 319-84-6 | alpha-BHC | 2.0 | Ū |
| 319-85-7 | beta-BHC | 2.0 | Ü |
| 319-86-8 | delta-BHC | 20 | Ū |
| 58-89-9 | gamma-BHC (Lindane) | 2.0 | U |
| 76-44-8 | Heptachlor | 2.0 | Ū |
| 309-00-2 | Aldrin | 2.0 | υ |
| 1024-57-3 | Heptachlor epoxide | 0.042 | J/Q |
| 959 - 98-8 | Endosulfan I | 2.0 | Ū |
| 60-57-1 | Dieldrin | 3.9 | ט |
| 72-55-9 | 4,4'-DDE | 3.9 | Ū |
| 72-20-8 | Endrin | 3.9 | Ū |
| 33213-65-9 | Endosulfan II | 3.9 | Ü |
| 72-54-8 | 4,4'-DDD | 3.9 | · Ū |
| 1031-07-8 | Endosulfan sulfate | 3.9 | Ū |
| 50-29-3 | 4,4'-DDT | . 3.9 | Ū |
| 72-43-5 | Methoxychlor | 20 1.0 | . <i>2</i> 5 U |
| 53494-70-5 | Endrin ketone . | 3.9 | Ū |
| 7421-93-4 | Endrin aldehyde | 3.9 | Ū |
| 5103-71-9 | alpha-Chlordane | 2.0 | Ū |
| 5103-74-2 | gamma-Chlordane | 2.0 | U |
| 8001-35-2 | Toxaphene | 200 | Ū |

EPA SAMPLE NO.

| J7 | 3W1 | | |
|----|-----|--|--|
| | | | |

| Lab Name: <u>Da</u> | taChem Laboratories, Inc. | Contract | : EP-W-05-026 | |
|---------------------|-----------------------------------|-----------|-------------------------|---------------------|
| Lab Code: DA | TAC Case No.: <u>35417</u> Mod. I | Ref No.: | SDG No.: <u>J73T9</u> | |
| Matrix: (SOI | L/SED/WATER) WATER | Lab Samp | le ID: <u>06C02711</u> | |
| Sample wt/vo | 1: 1000 (g/mL) mL | Lab File | ID: 21060625A051,210606 | 25B051 |
| % Moisture: | Decanted: (Y/N) | Date Rece | eived: 06/08/2006 | |
| Extraction: | (Type) SEPF | Date Ext | racted: 06/13/2006 | |
| | Extract Volume: 10000 (uL) | | | |
| | lume: 2.0 (uL) GPC Factor: | | | |
| - | | | | |
| GPC Cleanup: | (Y/N) <u>N</u> pH: | Sulfur Cl | leanup: (Y/N) N | |
| | <u> </u> | | CONCENTRATION UNITS: | |
| CAS NO. | COMPOUND | | (ug/L or ug/kg) ug/L | Q |
| 319-84-6 | alpha-BHC | | 0.05 2 0022 | ل) ہے۔ |
| 319-85-7 | beta-BHC | | 0.050 | |
| 319-86-8 | delta-BHC | | 0.050 | · · · · · · · · · · |
| 58-89-9 | gamma-BHC (Lindane) | | 0.050 | Ū |
| 76-44-8 | Heptachlor | | 0.050 | U. |
| 309-00-2 | Aldrin | | 0.050 | U |
| 1024-57-3 | Heptachlor epoxide | | 0.050 | บู |
| 959-98-8 | Endosulfan I | , | 0.05 1.0033 | ب) مِعِتر |
| 60-57-1 | Dieldrin | | 0.10 | ָ ָ ָ ָ ָ |
| 72-55-9 | 4,4'-DDE | | 0.0021 | JQ |
| 72-20-8 | Endrin | | 0.10 | ָט . |
| 33213-65-9 | Endosulfan II | | 0.10 20084 | ں میں ہے۔ |
| 72-54-8 | 4,4'-DDD | | 0.10 | Ū |
| 1031-07-8 | Endosulfan sulfate | | 0.10 2.6027 | الماليمة |
| 50-29-3 | 4,4'-DDT | | 0.10 2-008 | ک تیزر |
| 72-43-5 | Methoxychlor | | 0.50 2-079 | ن چيند |
| 53494-70-5 | Endrin ketone | | 0.10 2-0028 | الماليتر |
| 7421-93-4 | Endrin aldehyde | | 0.10 0.00 | JESPU. |
| 5103-71-9 | alpha-Chlordane | ! | 0.050 | ט |
| 5103-74-2 | gamma-Chlordane | | 0.050 | Ū |

8001-35-2

Toxaphene

5.0

EPA SAMPLE NO.

J73W2

| Lab Name: DataChem Laboratories, Inc. | Contract: EP-W-05-026 |
|--------------------------------------------|----------------------------------------|
| Lab Code: DATAC Case No.: 35417 Mod. Ref | No.: SDG No.: <u>J</u> 73T9 |
| Matrix: (SOIL/SED/WATER) SOIL | Lab Sample ID: 06C02712 |
| Sample wt/vol: 30.0 (g/mL) g | Lab File ID: 21060625A058,21060625B058 |
| % Moisture: <u>25</u> Decanted: (Y/N) N | Date Received: 06/08/2006 |
| Extraction: (Type) SONC | Date Extracted: 06/15/2006 |
| Concentrated Extract Volume: 10000 (uL) | Date Analyzed: 06/26/2006 |
| Injection Volume: 2.0 (uL) GPC Factor: 1.0 | Dilution Factor: 1.0 |
| GPC Cleanup: (Y/N) Y pH: 7.1 | Sulfur Cleanup: (Y/N) N |

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg | Q |
|-----------------------|---------------------|--------------------------------------------|--------|
| 319-84-6 | alpha-BHC . | 2.3 | Ū |
| 319-85-7 | beta-BHC | 2.3 | Ü |
| 31 9-0 6-8 | delta-BHC | 2.3 | บ |
| 58-89-9 [°] | gamma-BHC (Lindane) | 2.3 | Ū |
| 76-44-8 | Heptachlor | 2.3 | Ū |
| 309-00-2 | Aldrin | 2.3 | Ū |
| 1024-57-3 | Heptachlor epoxide | 2.3 | Ū |
| 959-98-8 | Endosulfan I | 2.3 | Ū |
| 60-57-1 | Dieldrin | 4.4 | Ū |
| 72-55-9 | 4,4'-DDE | 4.4 | Ū |
| 72-20-8 | Endrin | 4.4 | Ū |
| 33213-65-9 | Endosulfan II | 4.4 | Ü |
| 72-54-8 | 4,4'-DDD | 4.4 | υ |
| 1031-07-8 | Endosulfan sulfate | 4.4 | Ü |
| 50-29-3 | 4,4'-DDT | 4.4 | Ü |
| 72-43-5 | Methoxychlor . | 23 1 | .ટક્ડા |
| 53494-70-5 | Endrin ketone | 4.4 | . U |
| 7421-93-4 | Endrin aldenyde | 4.4 | Ū |
| 5103-71-9 | alpha-Chlordane | . 2.3 | Ü |
| 5103-74-2 | gamma-Chlordane | 2.3 | Ū |
| 8001-35-2 | Toxaphene | 230 | Ū |

EPA SAMPLE NO.

J73W3

| | • | | |
|---------------------|-----------------------------|-----------------------------------|--------------------|
| Lab Name: <u>Da</u> | taChem Laboratories, Inc. | Contract: EP-W-05-026 | |
| Lab Code: DA | TAC Case No.: 35417 Mod. Re | ef No.: SDG No.: <u>J73T9</u> | |
| Matrix: (SOI | L/SED/WATER) WATER | Lab Sample ID: 06C02713 | |
| Sample wt/vo | 1: 1000 (g/mL) mL | Lab File ID: 21060625A052,2106062 | 5B052 |
| % Moisture: | Decanted: (Y/N) | Date Received: 06/08/2006 | |
| Extraction: | (Type) SEPF | Date Extracted: 06/13/2006 | |
| | Extract Volume: 10000 (uL) | Date Analyzed: 06/26/2006 | |
| | lume: 2.0 (uL) GPC Factor: | | |
| - | | | |
| GPC Cleanup: | (Y/N) N pH: | Sulfur Cleanup: (Y/N) N | • |
| | | CONCENTRATION UNITS: | |
| CAS NO. | COMPOUND | (ug/L or ug/kg) ug/L | Ω |
| 319-84-6 | alpha-BHC | 0.050 | Ü |
| 319-85-7 | beta-BHC | 0.050 | Ū |
| 319-86-8 | delta-BHC | 0.050 | U " |
| 58-89-9 | gamma-BHC (Lindane) | 0.050 | ט |
| 76-44-8 | Heptachlor | 0.0022 | JZQ |
| 309-00-2 | Aldrin | 0.050 | . ប |
| 1024-57-3 | Heptachlor epoxide | 0.05 0.0612 | ں جیتہ |
| 959-98-8 | Endosulfan I | 0.050 | Ü |
| 60-57-1 | Dieldrin | 0.10 | Ū |
| 72-55-9 | 4,4'-DDE | 0.10 | Ū |
| 72-20-8 | Endrin | 0.10 | ט |
| 33213-65-9 | Endosulfan II | 0.10 | Ū · |
| 72-54-8 | 4,4'-DDD | 0.10 | Ü |
| 1031-07-8 | Endosulfan sulfate | 0.10 | บ |
| 50-29-3 | 4,4'-DDT | 0.10 2.0073 | JE U |
| 72-43-5 | Methoxychlor | 0.50 0.35 | ٤٩ |
| 53494-70-5 | Endrin ketone | 0.10 | ט |
| 7421-93-4 | Endrin aldehyde | 0.10 0 0000 | ب ^چ کتر |
| 5103-71-9 | alpha-Chlordane | 0.050 | Ū |
| 5103-74-2 | gamma-Chlordane · | 0.050 | Ü |
| 8001-35-2 | Toxaphene | 5.0 | Ū |

EPA SAMPLE NO.

| J73T9 |) |
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| Lab Name: Dat | aChem Laboratories, Inc. | Contract: EP-W-05-026 | | |
|---------------|------------------------------|-----------------------|---------------------------------------------|--|
| Lab Code: DAT | CAC Case No.: 35417 Mod. Ref | No.: | SDG No.: <u>J73T9</u> | |
| Matrix: (SOI | L/SED/WATER) <u>WATER</u> | Lab Sampl | e ID: <u>06C02709</u> | |
| Sample wt/vo | l: <u>1000 (g/mL) mL</u> | Lab File | ID: 19060620A020,19060620B020 | |
| % Moisture: _ | Decanted: (Y/N) | Date Rece | ived: 06/08/2006 | |
| Extraction: | (Type) SEPF | Date Extr | acted: 06/13/2006 | |
| Concentrated | Extract Volume: 10000 (uL) | Date Anal | yzed: 06/21/2006 | |
| Injection Vol | lume: 2.0 (uL) GPC Factor: | Diluti | on Factor: 1.0 | |
| GPC Cleanup: | (Y/N) N pH: | Sulfur Cl | eanup: (Y/N) N | |
| | : (Y/N) <u>Y</u> | | | |
| CAS NO. | COMPOUND | | CONCENTRATION UNITS: (ug/L or ug/kg) ug/L Q | |
| 12674-11-2 | Aroclor-1016 | | 1.0 U | |
| 11104-28-2 | Aroclor-1221 | Î | 1.0 U | |
| 11141-16-5 | Aroclor-1232 | | 1.0 U | |
| 53469-21-9 | Aroclor-1242 | | 1.0 U | |
| 12672-29-6 | Aroclor-1248 | | 1.0 U | |
| 11097-69-1 | Aroclor-1254 | | 1.0 U | |
| 11096-82-5 | Aroclor-1260 | | 1.0 U | |
| 37324-23-5 | Aroclor-1262 | | . 1.0 U | |
| 11100-14-4 | Aroclor-1268 | | 1.0 U | |

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EPA SAMPLE NO.

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| J73W0 | |
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| Lab Name: Da | taChem Laboratories, Inc. | Contract: EP-W-05-026 | | |
|-----------------------------------------|---------------------------------|----------------------------------------------|--|--|
| Lab Code: DA | TAC Case No.: 35417 Mod. Res | f No.: SDG No.: <u>J73T9</u> | | |
| Matrix: (SO | IL/SED/WATER) SOIL | Lab Sample ID: <u>06C02710</u> | | |
| Sample wt/vo | ol: 30.0 (g/mL) g | Lab File ID: 19060620A028,19060620B028 | | |
| % Moisture: | 14 Decanted: (Y/N) N | Date Received: 06/08/2006 | | |
| Extraction: | (Type) SONC | Date Extracted: 06/14/2006 | | |
| Concentrated Extract Volume: 10000 (uL) | | Date Analyzed: 06/21/2006 | | |
| Injection Vo | olume: 2.0 (uL) GPC Factor: 1.0 | Dilution Factor: 1.0 | | |
| GPC Cleanup: | (Y/N) Y pH: 6.8 | Sulfur Cleanup: (Y/N) N | | |
| Acid Cleanup | o: (Y/N) <u>Y</u> | | | |
| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg Q | | |
| 12674-11-2 | Aroclor-1016 | 39 U | | |
| 11104-28-2 | Aroclor-1221 | 39 0 | | |
| 11141-16-5 | Aroclor-1232 | 39 Ü | | |
| 53469-21-9 | Aroclor-1242 | 39 0 | | |

12672-29-6

11097-69-1

11096-82-5

37324-23-5

11100-14-4

Aroclor-1248

Aroclor-1254

Aroclor-1260

Aroclor-1262

Aroclor-1268

B1/25/06

EPA SAMPLE NO.

| Lab Name: Da | taChem Laboratories, Inc. | Contract | : EP-W-05-026 | |
|--------------|----------------------------------|----------|-------------------------------------------|----------|
| Lab Code: DA | ATAC Case No.: 35417 Mod. Re | f No.: | SDG No.: <u>J73T9</u> | |
| Matrix: (SO | IL/SED/WATER) WATER | Lab Samp | le ID: <u>06C02711</u> | |
| Sample wt/vo | ol: <u>1000</u> (g/mL) <u>mL</u> | Lab File | ID: <u>19060620A021, 19060620B</u> 0 | 021 |
| | Decanted: (Y/N) | Date Rec | eived: <u>06/08/2006</u> | |
| Extraction: | (Type) SEPF | Date Ext | racted: <u>06/13/2</u> 006 | |
| | d Extract Volume: 10000 (uL) | Date Ana | lyzed: <u>06/21/2006</u> | |
| | olume: 2.0 (uL) GPC Factor: | | | |
| _ | : (Y/N) N pH: | | | |
| | o: (Y/N) <u>Y</u> | | | |
| CAS NO. | COMPOUND | | CONCENTRATION UNITS: (ug/L or ug/kg) ug/L | ٥ |
| 12674-11-2 | Aroclor-1016 | | 1.0 | Ų |
| 11104-28-2 | Aroclor-1221 | | 1.0 | U |
| 11141-16-5 | Aroclor-1232 | | 1.0 | U |
| 53469-21-9 | Aroclor-1242 | | 1.0 | <u> </u> |
| 12672-29-6 | Aroclor-1248 | | 1.0 [| <u>.</u> |
| 11097-69-1 | Aroclor-1254 | | 1.0 0 | j |
| 11096-82-5 | Aroclor-1260 | · · · · | 1.0 | į |
| 37324-23-5 | Aroclor-1262 | | 1.0 | j |
| 11100-14-4 | Aroclor-1268 | | 1.0 | J |

EPA SAMPLE NO.

| _ | | | _ |
|---|---|------|-------|
| | J | 73W2 | |

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|---------------|--------------------------------|--------------------------------------------|--|--|
| Lab Name: Da | taChem Laboratories, Inc. | Contract: EP-W-05-026 | | |
| Lab Code: DA | TAC Case No.: 35417 Mod. Ref | No.: SDG No.: <u>J73T9</u> | | |
| Matrix: (SOI | L/SED/WATER) SOIL | Lab Sample ID: 06C02712 | | |
| .Sample wt/vo | 1: 30.0 (g/mL) g | Lab File ID: 19060620A029,19060620B029 | | |
| | Decanted: (Y/N) N | Date Received: 06/08/2006 | | |
| | (Type) SONC | Date Extracted: 06/14/2006 | | |
| | Extract Volume: 10000 (uL) | | | |
| • | lume: 2.0 (uL) GPC Factor: 1.0 | | | |
| • | (Y/N) Y pH: 7.1 | | | |
| Acid Cleanup | | | | |
| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg | | |
| 12674-11-2 | Aroclor-1016 | 4.4 U | | |
| 11104-28-2 | Arocior-1221 | 44 U | | |
| 11141-16-5 | Aroclor-1232 | 4.4 U. | | |
| 53469-21-9 | Aroclor-1242 | 44 U., | | |
| 12672-29-6 | Aroclor-1248 | 4.4 U | | |
| 11097-69-1 | Aroclor-1254 | 4.4 U -, | | |
| 11096-82-5 | Aroclor-1260 | 44 .U., | | |
| 37324-23-5 | Aroclor-1262 | 44 Ü | | |

Aroclor-1268

18 8/200

EPA SAMPLE NO.

| J73W3 | |
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| | |

| Lab Name: Dat | aChem Laboratories, Inc. | _ | Contract: EP-W- | ·05-026 | |
|---------------|----------------------------|----------|-----------------|---------------------------------|-------|
| Lab Code: DAT | FAC Case No.: 35417 | Mod. Ref | No.: | S.DG No.: <u>J73T9</u> | |
| Matrix: (SOI | L/SED/WATER) WATER | | Lab Sample ID: | 06C02713 | |
| Sample wt/vo | l: 1000 (g/mL) mL | _ | Lab File ID: 19 | 060620A022,19060620 | 03022 |
| | Decanted: (Y/N) | | | • | |
| | (Type) SEPF | | Date Extracted | | |
| | Extract Volume: 10000 | | Date Analyzed: | 06/21/2006 | |
| Injection Vol | lume: 2.0 (uL) GPC Factor: | - | Dilution Fa | ctor: 1.0 | |
| • | (N/Y) Hq | | | | |
| | : (Y/N) <u>Y</u> | | ÷ | | |
| CAS NO. | COMPOUND | | | ENTRATION UNITS: or ug/kg) ug/L | Q |
| 12674-11-2 | Aroclor-1016 | | | 1.0 | Ū |
| 11104-28-2 | Aroclor-1221 | | | 1.0 | Ü |
| 11141-16-5 | Aroclor-1232 | | | 1.0 | Ū |
| 53469-21-9 | Aroclor-1242 | | | 1.0 | Ü |
| 12672-29-6 | Aroclor-1248 | - | | 1.0 | Ū |
| 11097-69-1 | Aroclor-1254 | | | 1.0 | Ü |
| 11096-82-5 | Aroclor-1260 | | | 1.0 | Ū. |
| 37324-23-5 | Aroclor-1262 | | | 1.0 | Ü |

Aroclor-1268

11100-14-4



ecology and environment, inc.

International Specialists in the Environment

720 Third Avenue, Suite 1700, Seattle, WA 98104

Tel: (206) 624-9537, Fax: (206) 621-9832

MEMORANDUM

DATE:

July 28, 2006

FROM:

Mark Woodke, START-3 Chemist, E & E, Seattle, Washington MW

SUBJ:

Organic Data Summary Check, Former Nike Launch Site #81,

Poulsbo, Washington

REF:

TDD: 06-01-0035

PAN: 002233.0051.01SR

The data summary check of 12 water and two sediment samples collected from the Former Nike Launch Site #81 in Poulsbo, Washington, has been completed. Perchlorate analyses were performed by the Manchester Environmental Laboratory (MEL), Port Orchard, Washington.

The samples were numbered:

| 06234050 | 06234051 | 06234052 | 06234053 | 06234054 | 06234055 |
|----------|----------|----------|----------|----------|----------|
| 06234056 | 06234057 | 06234061 | 06234062 | 06234063 | 06234064 |
| 06234065 | 06234066 | | | | |

No discrepancies were noted.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION 10 LABORATORY

7411 Beach Dr. East Port Orchard, Washington 98366

MEMORANDUM

SUBJECT:

Data Release for Perchlorate Results from the USEPA Region 10

Laboratory

PROJECT NAME:

Former Nike Launch Site

PROJECT CODE:

TEC-877A

FROM:

Gerald Dodo, Chemistry Supervisor

USEPA Region 10 Laboratory

TO:

Ken Marcy, Project Manager

Office of Environmental Cleanup, USEPA Region 10

CC:

Mark Woodke, Ecology and Environment, Inc.

mwoodke@ene.com

I have authorized release of this data package. Attached you will find the perchlorate results for the Former Nike Launch Site project samples received 06/07/2006. For further information regarding the attached data, contact Isa Chamberlain at (360)871-8706.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION 10 LABORATORY

7411 Beach Dr. East Port Orchard, Washington 98366

MEMORANDUM

DATE:

July 18, 2006

To:

Ken Marcy, Project Manager

Office of Environmental Cleanup, Site Cleanup Unit 2, USEPA Region 10

FROM:

Stephanie Le, Chemist

Office of Environmental Assessment, USEPA Region 10 Laboratory

CC:

Mark Woodke, Ecology and Environment, Inc.

mwoodke@ene.com

SUBJECT:

Data Review of the Perchlorate Analysis for Former Nike Launch Site #81 samples

Project Code: TEC-877A

Account Code: 06T1P302DD2C10ZZLA00

The following is a data review of the perchlorate analyses of twelve water samples and two sediment samples from the Former Nike Launch Site #81 project. The analyses were performed by EPA chemists at the USEPA Region 10 Laboratory in Port Orchard, WA, following USEPA and Laboratory guidelines.

This review was conducted for the following samples:

Water Samples

| 06234050 | 06234051 | 06234052 | 06234053 | 06234055 | 06234057 |
|----------|----------|----------|----------|----------|----------|
| 06234061 | 06234062 | 06234063 | 06234064 | 06234065 | 06234066 |

Sediment Samples

06234054 06234056

Data Qualifications

The following comments refer to the quality control specifications outlined in the Laboratory's current Quality Assurance Manual, and the QAPP. The qualifications recommended herein are based on the information provided for the review. For those tests for which the USEPA Region 10 Laboratory has been NELAC accredited, all requirements of the current NELAC Standard have been met.

1.0 Perchlorate – Acceptable

The holding time from the date of collection until the date of analysis for perchlorate is 28 days. The samples were collected on 06/06/2006 and the perchlorate analysis was conducted on 06/14/2006 and 06/15/2006. The holding time criterion was met for all samples.

Although the scope of EPA Method 314.0 does not cover sediments, it can be applied to this matrix by extracting 5g of soil with 50mL reagent water. Therefore, the sample and corresponding quality control samples were mixed with reagent water on 06/14/2006 and allowed to sit overnight prior to filtration and analysis. Water samples were also filtered prior to analysis, as specified by the Method. The conductivity of all sediment extracts and water samples was measured and the

results were below the instrument MCT. No sample pretreatment was required. All sample preparation was in accordance with USEPA Region 10 Laboratory protocols. No qualification of the data was required based on sample preparation.

The water samples and sediment extracts were analyzed for perchlorate using EPA Method 314.0. The instrument was calibrated on 06/12/2006. The calibration was performed according to the method using a series of standards, with the lowest standard at the concentration of the minimum reporting limit (MRL). The calibration curve was linear and yielded a correlation coefficient greater than 0.995. Calibration verification standards are required before and after sample analysis and after every ten samples during analysis. The recoveries must be within 85-115% for a midrange standard, and within 75-125% for a standard at the MRL. All appropriate calibration verification checks met the recovery criteria.

A standard at the instrument-determined Maximum Conductivity Threshold (MCT) must be analyzed as the initial sample to prove the instrument analysis can detect perchlorate in a sample with a mixed common anion matrix up to the MCT. Recovery met the acceptance criterion of 80-120% of the standard's true value. The conductivity of the standard was verified to be within 10% of the MCT prior to analysis.

Laboratory control samples are prepared and analyzed along with the project samples to verify the efficiency of the laboratory procedures. All laboratory control sample results met the recovery acceptance criterion of 90-110% of the standard's true value.

Procedural blanks were prepared with the samples to show potential contamination from the analytical procedure. The results from the blank analyses are required to be less than the MRL. The procedural blank did not contain detectable levels of perchlorate.

Duplicate analysis was performed on samples 06234051, 06234056, 06234057, and 06234062. Relative Percent Difference (RPD) was not calculated because the results were less than five times the MRL. However, the RPD met the requirement of 20% when calculated for the Matrix Spike and Matrix Spike Duplicate.

Matrix Spike/Matrix Spike Duplicate (MS/MSD) sample analyses are performed to provide information about the effect of the sample matrix on the analytical method. MS/MSD analysis was performed on samples 06234051, 06234056, 06234057, and 06234062. All matrix spike recoveries met the required acceptance limits of 80-120%.

<u>Overall Assessment of the Perchlorate Data:</u> Sample results that fell at or below the Minimum Reporting Limit (MRL) were assigned the value of the MRL and the "U" qualifier was attached. No other qualification was required.

Below are the definitions for the qualifiers used in the Inorganic area when qualifying data from Inorganic analysis.

DATA QUALIFIERS

- U The analyte was not detected at or above the reported value.
- J The identification of the analyte is acceptable; the reported value is an estimate.
- JK The identification of the analyte is acceptable; the reported value is an estimate and may be <u>biased high</u>.

 The actual value is expected to be less than the reported value.
- JL The identification of the analyte is acceptable; the reported value is an estimate and may be <u>biased low</u>. The actual value is expected to be greater than the reported value.
- UJ The analyte was not detected at or above the reported value. The reported value is an estimate.
- NA Not Applicable. The parameter was not analyzed for, or other is no analytical result for this parameter.

 No value is reported with this qualification.

Manchester Environmental Laboratory Report by Parameter for Project TEC-877A

Page 1 of 32

Project Code: Project Name: TEC-877A

FORMER NIKE LAUNCH SITE #81

Project Officer:

KEN MARCY

Account Code:

Station Description:

06T10P302DD2C10ZZLA00

Collected:

Matrix:

6/6/06 Liquid

Sample Number: Type:

06234050

Reg sample

| | | | · • · · · · | Result | Units | Qlfr |
|--------------|-------------|-------------|-------------|--------|---------|-------------------|
| GEN | | | | | | |
| Parameter : | Perchlorate | | | | Contai | ner ID: N2 |
| Method : | 314.0 | Perchlorate | | | Analysi | s Date: 6/14/2006 |
| Prep Method: | 314.0 | | | | Pre | p Date: 6/14/2006 |
| Analytes(s): | *901'80 | Perchlorate | | 2.0 | ug/L | U |

Manchester Environmental Laboratory Report by Parameter for Project TEC-877A

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32

Project Code: Project Name:

TEC-877A

FORMER NIKE LAUNCH SITE #81

Collected: Matrix:

6/6/06

Project Officer:

KEN MARCY

Sample Number:

Liquid 06234051

Account Code:

06T10P302DD2C10ZZLA00

Type:

Reg sample

Station Description:

| | | | | Result | Units | Qlfr |
|--------------|-------------|-------------|---|--------|--------|---------------------|
| GEN | | | | | | |
| Parameter : | Perchlorate | | | | Conta | iner ID: N2 |
| Method : | 314.0 | Perchlorate | : | | Analys | sis Date: 6/14/2006 |
| Prep Method: | 314.0 | | | | . Pr | ep Date: 6/14/2006 |
| Analytes(s): | *90180 | Perchlorate | | 2.0 | ug/L | Ū |

Manchester Environmental Laboratory
Report by Parameter for Project TEC-877A

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32

Project Code:

TEC-877A

Project Name:

FORMER NIKE LAUNCH SITE #81

Project Officer:

KEN MARCY 06T10P302DD2C10ZZLA00

Account Code: Station Description:

Collected:

Matrix:

Liquid

Sample Number:

06234051

Type:

Duplicate-

Result Units Qlfr **GEN** Parameter : Perchlorate Container ID: N2 Method : 314.0 Perchlorate Analysis Date: 6/14/2006 Prep Method: 314.0 Prep Date: 6/14/2006 Analytes(s): *90180 Perchlorate 2.0 ug/L U

Manchester Environmental Laboratory Report by Parameter for Project TEC-877A

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32

Project Code: Project Name: **TEC-877A**

FORMER NIKE LAUNCH SITE #81

Collected: Matrix:

Liquid

KEN MARCY

Sample Number:

06234051

Project Officer: **Account Code:**

06T10P302DD2C10ZZLA00

Type: ·

Matrix Spike

Station Description:

Result Units Qlfr **GEN** Parameter Container ID: N2 : Perchlorate Method : 314.0 Perchlorate Analysis Date: 6/14/2006 Prep Date: 6/14/2006 Prep Method: 314.0 Surrogate(s): *90180 Perchlorate 103 %Rec

Manchester Environmental Laboratory Report by Parameter for Project TEC-877A

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32

Project Code:

TEC-877A

Project Name:

FORMER NIKE LAUNCH SITE #81

Project Officer:

Station Description:

Surrogate(s): *90180

KEN MARCY

Account Code:

06T10P302DD2C10ZZLA00

Perchlorate

Collected:

Matrix:

Liquid

%Rec

Sample Number:

103

06234051

Type:

Matrix Spike Dupl

Result Units Qlfr **GEN** Parameter : Perchlorate Container ID: N2 Perchlorate Method : 314.0 Analysis Date: 6/14/2006 Prep Method: 314.0 Prep Date: 6/14/2006

Manchester Environmental Laboratory Report by Parameter for Project TEC-877A

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32

Project Code: Project Name: **TEC-877A**

FORMER NIKE LAUNCH SITE #81

Collected: Matrix: 6/6/06

KEN MARCY

Sample Number:

Liquid 06234052

Project Officer: Account Code:

06T10P302DD2C10ZZLA00

Type:

Reg sample

Station Description:

| | | | | Result | Units | Qlfı | <u>r</u> |
|-------------|---|-------------|-------------|------------|-------|-------------|-----------|
| GEN | | | | | | | |
| Parameter : | : | Perchlorate | | | Cor | ntainer ID: | N1 |
| Method | : | 314.0 | Perchlorate | | Anal | ysis Date: | 6/14/2006 |
| Prep Method | : | 314.0 | | |] | Prep Date : | 6/14/2006 |
| Analytes(s) | : | *90180 | Perchlorate | 2.0 | ug/L | U | |

Manchester Environmental Laboratory Report by Parameter for Project TEC-877A

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32

Project Code:

TEC-877A

FORMER NIKE LAUNCH SITE #81

Collected: Matrix: 6/6/06

Project Name: Project Officer:

KEN MARCY

Sample Number:

Liquid 06234053

Account Code:

06T10P302DD2C10ZZLA00

Type:

Reg sample

Station Description:

PD01SW

| | | | Result | Units | QI | <u>fr</u> |
|--------------|-------------|-------------|--------|-------|---------------|-----------|
| GEN | | | | | | |
| Parameter : | Perchlorate | | | C | ontainer ID : | N2 |
| Method : | 314.0 | Perchlorate | | An | alysis Date : | 6/15/2006 |
| Prep Method: | 314.0 | | | | Prep Date : | 6/14/2006 |
| Analytes(s): | *90180 | Perchlorate | 2.0 | ug/L | U | |

Manchester Environmental Laboratory Report by Parameter for Project TEC-877A

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Project Code:

TEC-877A

Collected:

6/6/06

Project Name:

FORMER NIKE LAUNCH SITE #81

Matrix:

Solid 06234054

Project Officer: Account Code:

KEN MARCY 06T10P302DD2C10ZZLA00 Sample Number:

Station Description:

PD01SD

Type:

Reg sample

| | | Result | Units | <u>Qlfr</u> |
|-------------------------|-------------|--------|--------|---------------------|
| GEN | | | | |
| Parameter : Perchlorate | | | Conta | niner ID: N1 |
| Method : 314.0 | Perchlorate | | Analys | sis Date: 6/15/2006 |
| Prep Method : 314.0 | | | Pr | ep Date: 6/14/2006 |
| Analytes(s): *90180 | Perchlorate | 0.020 | mg/kg | U |

Manchester Environmental Laboratory Report by Parameter for Project TEC-877A

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U

32

Project Code:

TEC-877A

FORMER NIKE LAUNCH SITE #81

Collected: Matrix:

6/6/06

ug/L

Project Name: Project Officer:

KEN MARCY

Sample Number:

2.0

Liquid 06234055

Account Code:

GEN

Analytes(s): *90180

06T10P302DD2C10ZZLA00

Perchlorate

Type:

Reg sample

Station Description:

PD02SW

| | | | | | Result | Units | Qlfr | - |
|-------------|------------|-------------|-------------|--|--------|--------|---------------|---------|
| GEN | | | | | | | | |
| Parameter | : | Perchlorate | | | | Conta | iner ID: N2 | |
| Method | : | 314.0 | Perchlorate | | | Analys | is Date: 6/1: | 5/2006 |
| Prep Method | i : | 314.0 | | | | Pre | p Date : 6/14 | 4/2006. |

Manchester Environmental Laboratory Report by Parameter for Project TEC-877A

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Project Code:

TEC-877A

Project Name:

FORMER NIKE LAUNCH SITE #81

Project Officer:

GEN

Method

KEN MARCY

Account Code:

06T10P302DD2C10ZZLA00

Station Description: PD02SD

Collected:

ectea:

6/6/06 Solid

Matrix: Sample Number:

06234056

Type:

Reg sample

Result Units Olfr

Container ID: N2

Analysis Date: 6/15/2006

Prep Method: 314:0

Analytes(s): *90180

Parameter : Perchlorate

: 314.0

Perchlorate

Perchlorate

0.020

mg/kg

U

Prep Date: 6/14/2006

7/19/06 -

Manchester Environmental Laboratory Report by Parameter for Project TEC-877A

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Project Code:

TEC-877A

Project Name:

FORMER NIKE LAUNCH SITE #81

Project Officer:

KEN MARCY 06T10P302DD2C10ZZLA00

Account Code: Station Description:

Collected:

Matrix:

Solid

Sample Number:

06234056

Type:

Duplicate

| | | | Result | Units | Qlfr |
|---------------|-------------|-------------|--------|-------|---------------------|
| GEN | | | | | |
| Parameter : | Perchlorate | | | Contr | ainer ID: N2 |
| Method : | 314.0 | Perchlorate | | Analy | sis Date: 6/15/2006 |
| Prep Method : | 314.0 | | | Pr | ep Date: 6/14/2006 |
| Analytes(s): | *90180 | Perchlorate | 0.020 | mg/kg | U |

Manchester Environmental Laboratory Report by Parameter for Project TEC-877A

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Project Code: Project Name:

TEC-877A

FORMER NIKE LAUNCH SITE #81

Project Officer:

KEN MARCY

Account Code:

Parameter

Method

06T10P302DD2C10ZZLA00

Collected:

Matrix:

Solid

Sample Number:

06234056

Type:

Matrix Spike

Station Description:

Result Units Qlfr

GEN

: Perchlorate

: 314.0

Perchlorate

Container ID: N2

Analysis Date: 6/15/2006 Prep Date: 6/14/2006

Prep Method: 314.0

Surrogate(s): *90180

Perchlorate

106

%Rec

Manchester Environmental Laboratory
Report by Parameter for Project TEC-877A

Project Code:

TEC-877A

KEN MARCY

Project Name:

FORMER NIKE LAUNCH SITE #81

Project Officer:

06T10P302DD2C10ZZLA00

Account Code: Station Description:

Collected:

Matrix:

Solid

Sample Number:

06234056

Type:

Matrix Spike Dupl

Page 13 of

32

| | | | Result | | Units | Qlf | <u>r</u> |
|---------------|-------------|-------------|------------|-------------|-------|-------------|-----------|
| GEN | | | | | | | |
| Parameter : | Perchlorate | | | | Con | tainer ID : | N2 |
| Method | 314.0 | Perchlorate | | | Analy | sis Date : | 6/15/2006 |
| Prep Method | 314.0 | | | | P | rep Date : | 6/14/2006 |
| Surrogate(s): | *90180 | Perchlorate | 105 | | %Rec | | |

Manchester Environmental Laboratory Report by Parameter for Project TEC-877A

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Project Code:

TEC-877A

Project Name:

FORMER NIKE LAUNCH SITE #81

Project Officer:

KEN MARCY

Account Code: **Station Description:** 06T10P302DD2C10ZZLA00

CR01SW

Collected:

6/6/06

Matrix: Sample Number: Liquid 06234057

Type:

Reg sample

| | | | Result | Units | Qlfr |
|---------------|-------------|-------------|------------|-------|---------------------|
| GEN | | | | | |
| Parameter : | Perchlorate | | | Conta | ainer ID: N1 |
| Method : | 314.0 | Perchlorate | | Analy | sis Date: 6/15/2006 |
| Prep Method : | 314.0 | | | Pr | ep Date: 6/14/2006 |
| Analytes(s): | *90180 | Perchlorate | 2.0 | ug/L | U |

Manchester Environmental Laboratory Report by Parameter for Project TEC-877A

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Project Code:

TEC-877A

Project Name:

Project Officer:

KEN MARCY 06T10P302DD2C10ZZLA00

Account Code: **Station Description:** FORMER NIKE LAUNCH SITE #81

Collected:

Matrix:

Liquid

Sample Number:

06234057

Type:

Duplicate

| | | | Result | Units | Qlfr |
|---------------|-------------|-------------|------------|--------|--------------------|
| GEN | | | | | |
| Parameter : | Perchlorate | | | Conta | iner ID: N1 |
| Method : | 314.0 | Perchlorate | | Analys | is Date: 6/15/2006 |
| Prep Method : | 314.0 | | | Pro | ep Date: 6/14/2006 |
| Analytes(s): | *90180 | Perchlorate | 2.0 | ug/L | U |

Manchester Environmental Laboratory Report by Parameter for Project TEC-877A

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Project Code:

TEC-877A

Project Name:

FORMER NIKE LAUNCH SITE #81

Project Officer:

KEN MARCY 06T10P302DD2C10ZZLA00

Account Code: Station Description:

Collected:

Matrix:

Liquid

Sample Number:

06234057

Type:

Matrix Spike

| | | | Result | Units | Qlfr |
|---------------|-------------|-------------|--------|--------|--------------------|
| GEN | | | | | |
| Parameter : | Perchlorate | | | Conta | iner ID: N1 |
| Method : | 314.0 | Perchlorate | | Analys | is Date: 6/15/2006 |
| Prep Method: | 314.0 | | | Pre | p Date: 6/14/2006 |
| Surrogate(s): | *90180 | Perchlorate | 106 | %Rec | |

Manchester Environmental Laboratory Report by Parameter for Project TEC-877A

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Project Code:

TEC-877A

Project Name:

FORMER NIKE LAUNCH SITE #81

Project Officer:

06T10P302DD2C10ZZLA00

Account Code: **Station Description:** KEN MARCY

Collected:

Matrix:

Liquid

Sample Number:

06234057

Type:

Matrix Spike Dupl

| | · | | Res | ult | Units | Olfr |
|---------------|-------------|-------------|-----|-----|--------|---------------------|
| GEN | | | | | | |
| Parameter : | Perchlorate | | | | Conta | niner ID: N1 |
| Method : | 314.0 | Perchlorate | | | Analys | sis Date: 6/15/2006 |
| Prep Method : | 314.0 | | • | | Pr | ep Date: 6/14/2006 |
| Surrogate(s) | *90180 | Perchlorate | 103 | | %Rec | |

Manchester Environmental Laboratory Report by Parameter for Project TEC-877A

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Project Code:

TEC-877A

Project Name:

FORMER NIKE LAUNCH SITE #81

Project Officer:

KEN MARCY 06T10P302DD2C10ZZLA00

Account Code: Station Description:

Collected:

Matrix:

6/6/06 Liquid

Sample Number:

06234061

Type:

Reg sample

| | | | Result | Units | Olfr |
|---------------|-------------|-------------|------------|-------|------------------------|
| GEN | | | | | |
| Parameter : | Perchlorate | | | Co | ontainer ID: N2 |
| Method : | 314.0 | Perchlorate | | An | alysis Date: 6/15/2006 |
| Prep Method : | 314.0 | | | | Prep Date: 6/14/2006 |
| Analytes(s): | *90180 | Perchlorate | 2.0 | ug/L | U |

Manchester Environmental Laboratory Report by Parameter for Project TEC-877A

Page 19 of 32

Project Code: Project Name: TEC-877A

FORMER NIKE LAUNCH SITE #81

Collected: Matrix:

6/6/06

Project Officer:

KEN MARCY

Sample Number:

Liquid 06234062

Account Code:

06T10P302DD2C10ZZLA00

Type:

Reg sample

Station Description:

| - | | | Result | Units | Qlfr | _ |
|---------------|-------------|-------------|------------|--------|---------------|----------|
| GEN | | | | | | |
| Parameter : | Perchlorate | | | Conta | iner ID: N2 | <u>!</u> |
| Method : | 314.0 | Perchlorate | | Analys | sis Date: 6/1 | 5/2006 |
| Prep Method : | 314.0 | | | Pr | ep Date: 6/1 | 4/2006 |
| Analytes(s): | *90180 | Perchlorate | 2.0 | ug/L | U | |

Manchester Environmental Laboratory Report by Parameter for Project TEC-877A

Page 20 of 32

Project Code: Project Name: TEC-877A -

FORMER NIKE LAUNCH SITE #81

Collected: Matrix:

Liquid

 ${\bf Project\ Officer:}$

KEN MARCY

Sample Number:

06234062

Account Code:

06T10P302DD2C10ZZLA00

Type:

Duplicate

Station Description:

| | | | Res | sult Unit | ts Ql | <u>fr</u> |
|---------------|-------------|-------------|-----|-----------|----------------|-----------|
| GEN | | | | | | |
| Parameter : | Perchlorate | | | | Container ID: | N2 |
| Method : | 314.0 | Perchlorate | | | Analysis Date: | 6/15/2006 |
| Prep Method : | 314.0 | | | | Prep Date: | 6/14/2006 |
| Analytes(s): | *90180 | Perchlorate | 2.0 | ug/L | U | |

Manchester Environmental Laboratory Report by Parameter for Project TEC-877A

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Project Code:

TEC-877A

Project Name:

FORMER NIKE LAUNCH SITE #81

Project Officer:

KEN MARCY 06T10P302DD2C10ZZLA00

Account Code: Station Description:

Collected:

Matrix:

Liquid

Sample Number:

06234062

Type:

Matrix Spike

| | | | Res | sult | Units Q | lfr |
|---------------|-------------|-------------|-----|------|----------------|-----------|
| GEN | | | | | | |
| Parameter : | Perchlorate | | | | Container ID: | N2 |
| Method : | 314.0 | Perchlorate | | | Analysis Date: | 6/15/2006 |
| Prep Method : | 314.0 | | | | Prep Date : | 6/14/2006 |
| Surrogate(s): | *90180 | Perchlorate | 102 | , | %Rec | |

Manchester Environmental Laboratory Report by Parameter for Project TEC-877A

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Project Code:

TEC-877A

Project Name:

FORMER NIKE LAUNCH SITE #81

Project Officer:

KEN MARCY 06T10P302DD2C10ZZLA00

Account Code: Station Description:

Collected:

Matrix:

Liquid

Sample Number:

06234062

Type:

Matrix Spike Dupl

Result Units Qlfr **GEN** Parameter : Perchlorate Container ID: N2 Method : 314.0 Perchlorate Analysis Date: 6/15/2006 Prep Method: 314.0 Prep Date: 6/14/2006 Perchlorate 102 %Rec Surrogate(s): *90180

Manchester Environmental Laboratory Report by Parameter for Project TEC-877A

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Project Code:

TEC-877A

Project Name:

FORMER NIKE LAUNCH SITE #81

KEN MARCY

Project Officer: 06T10P302DD2C10ZZLA00

Account Code: Station Description: Collected:

Matrix:

6/6/06 Liquid

Sample Number:

06234063

Type:

Reg sample

| | | | Result | Units | Qlfr |
|---------------|-------------|-------------|--------|----------|-----------------|
| GEN | | | | | |
| Parameter : | Perchlorate | • | | Contain | er ID: N2 |
| Method : | 314.0 | Perchlorate | | Analysis | Date: 6/15/2006 |
| Prep Method : | 314.0 | | | Ргер | Date: 6/14/2006 |
| Analytes(s): | *90180 | Perchlorate | 2.0 | ug/L | U |

Manchester Environmental Laboratory Report by Parameter for Project TEC-877A

Page 24 of 32

Project Code:

TEC-877A

FORMER NIKE LAUNCH SITE #81

Collected:

6/6/06

Project Name: Project Officer:

KEN MARCY

Matrix: Sample Number: Liquid 06234064

Account Code:

06T10P302DD2C10ZZLA00

Type:

Reg sample

Station Description:

| | | | Result | Units | Qlfr |
|---------------|-------------|-------------|--------|---------------|--------------|
| GEN | | | | | |
| Parameter : | Perchlorate | | | Container ID |): N1 |
| Method : | 314.0 | Perchlorate | | Analysis Date | e: 6/15/2006 |
| Prep Method : | 314.0 | | | Prep Date | e: 6/14/2006 |
| Analytes(s): | *90180 | Perchlorate | 2.0 | ug/L (| U |

Manchester Environmental Laboratory Report by Parameter for Project TEC-877A

Page 25 of 32

Project Code:

TEC-877A

Project Name:

FORMER NIKE LAUNCH SITE #81

Project Officer:

KEN MARCY

Account Code: Station Description:

06T10P302DD2C10ZZLA00

Collected:

Matrix:

6/6/06

Sample Number:

Liquid 06234065

Type:

Reg sample

Result Units Qlfr **GEN** Parameter : Perchlorate Container ID: N1 Method : 314.0 Perchlorate Analysis Date: 6/15/2006 Prep Method: 314.0 Prep Date: 6/14/2006 Analytes(s): *90180 Perchlorate 2.0 ug/L U

Manchester Environmental Laboratory Report by Parameter for Project TEC-877A

Page 26 of

32

Project Code:

TEC-877A

FORMER NIKE LAUNCH SITE #81

Collected: Matrix:

6/6/06

Project Name: Project Officer:

KEN MARCY

Matrix: Sample Number: Liquid 06234066

Account Code:

06T10P302DD2C10ZZLA00

Type:

Reg sample

Station Description:

Result Units Qlfr **GEN** Parameter : Perchlorate Container ID: N1 : 314.0 Perchlorate Analysis Date: 6/15/2006 Method Prep Method: 314.0 Prep Date: 6/14/2006 Analytes(s): *90180 Perchlorate 2.0 ug/L U

Manchester Environmental Laboratory Report by Parameter for Project TEC-877A

Page 27 of 32

Project Code:

TEC-877A

Project Name:

FORMER NIKE LAUNCH SITE #81

Project Officer:

KEN MARCY 06T10P302DD2C10ZZLA00

Account Code: Station Description:

Collected:

Matrix:

Liquid

Sample Number:

CW060614A

Type:

Blank

| | | | Res | sult | Units (| Olfr |
|---------------|-------------|-------------|-----|------|---------------|-------------|
| GEN | | | | | | |
| Parameter : | Perchlorate | | | | Container ID | : |
| Method : | 314.0 | Perchlorate | | | Analysis Date | : 6/14/2006 |
| Prep Method : | 314.0 | | | | Prep Date | : 6/14/2006 |
| Analytes(s): | *90180 | Perchlorate | 2.0 | ī | ıg/L Ţ | J |

Manchester Environmental Laboratory Report by Parameter for Project TEC-877A

Page 28 of 32

Project Code:

TEC-877A

Project Name:

FORMER NIKE LAUNCH SITE #81

Project Officer:

KEN MARCY

Account Code:

06T10P302DD2C10ZZLA00 Station Description:

Collected:

Matrix:

Liquid

Sample Number:

CW060614A

Type:

LCS

| | | Result | Units | Qlfr | |
|-------------------------|-------------|--------|-------|------------------|------|
| GEN | | | | | • |
| Parameter : Perchlorate | | | Conta | iner ID : | ٠ |
| Method : 314.0 | Perchlorate | | Analy | sis Date: 6/14/2 | 2006 |
| Prep Method : 314.0 | | | Pr | ep Date: 6/14/2 | 2006 |
| Surrogate(s): *90180 | Perchlorate | 105 | %Rec | | |

Manchester Environmental Laboratory Report by Parameter for Project TEC-877A

Page 29 of 32

Project Code:

TEC-877A

Project Name:

FORMER NIKE LAUNCH SITE #81

Project Officer:

KEN MARCY 06T10P302DD2C10ZZLA00

Account Code: Station Description:

Collected:

Matrix:

Liquid

Sample Number:

CW060614A

Type:

LCSD

Result Units Qlfr_ **GEN** : Perchlorate Container ID: Parameter Method : 314.0 Perchlorate Analysis Date: 6/14/2006 Prep Method: 314.0 Prep Date: 6/14/2006 104 Surrogate(s): *90180 Perchlorate %Rec

Manchester Environmental Laboratory Report by Parameter for Project TEC-877A

Page 30 of 32

Project Code: Project Name: TEC-877A

FORMER NIKE LAUNCH SITE #81

KEN MARCY

Project Officer: 06T10P302DD2C10ZZLA00

Account Code: Station Description: Collected:

Matrix:

Liquid

Sample Number:

CW060615A

Type:

Blank

| | | | Result | Units | Qlfr |
|---------------|-------------|-------------|--------|--------|-------------------|
| GEN | | | | | |
| Parameter : | Perchlorate | ; | | Conta | iner ID : |
| Method : | 314.0 | Perchlorate | | Analys | sis Date: 6/15/20 |
| Prep Method : | 314.0 | | | Pr | ep Date: 6/14/20 |
| Analytes(s): | *90180 | Perchlorate | 2.0 | ug/L | U |

Manchester Environmental Laboratory Report by Parameter for Project TEC-877A

Page 31 of 32

Project Code:

TEC-877A

Project Name:

FORMER NIKE LAUNCH SITE #81

Project Officer:

Station Description:

KEN MARCY

Account Code:

06T10P302DD2C10ZZLA00

Collected:

Matrix:

Liquid

Sample Number:

CW060615A

Type:

LCS

Result Units Olfr **GEN** Parameter : Perchlorate Container ID: Perchlorate Method : 314.0 Analysis Date: 6/15/2006 Prep Method: 314.0 Prep Date: 6/14/2006 Surrogate(s): *90180 Perchlorate 106 %Rec

Manchester Environmental Laboratory Report by Parameter for Project TEC-877A

Page 32 of 32

Project Code: Project Name:

TEC-877A

FORMER NIKE LAUNCH SITE #81

KEN MARCY

Project Officer: Account Code:

06T10P302DD2C10ZZLA00

Collected:

Matrix:

Liquid

Sample Number:

CW060615A

Type:

LCSD

Station Description:

| | | Result | Units | Qlfr |
|-----------------------|-------------|--------|--------|---------------------|
| GEN | | | | |
| Parameter : Perchlo | rate | | Conta | iner ID: |
| Method : 314.0 | Perchlorate | | Analys | sis Date: 6/15/2006 |
| Prep Method: 314.0 | | | Pr | ep Date: 6/14/2006 |
| Surrogate(s): *90180 | Perchlorate | 105 | %Rec | |



ecology and environment, inc.

International Specialists in the Environment

720 Third Avenue, Suite 1700, Seattle, WA 98104

Tel: (206) 624-9537, Fax: (206) 621-9832

MEMORANDUM

DATE:

July 20, 2006

FROM:

Mark Woodke, START-3 Chemist, E & E, Seattle, Washington Mu-

SUBJ:

Inorganic Data Summary Check, Former Nike Launch Site #81,

Poulsbo, Washington

REF:

TDD: 06-01-0035

PAN: 002233.0051.01SR

The data summary check of 2 sediment samples collected from the Former Nike Launch Site #81 in Poulsbo, Washington, has been completed. Target analyte list (TAL) metals analyses were performed by Bonner Analytical, Inc., Hattiesburg, Mississippi.

The samples were numbered:

MJ73W0

MJ73W2

No discrepancies were noted.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION 10

1200 Sixth Avenue Seattle, Washington 98101

July 6, 2006

Reply To

Attn. Of: OEA-095

MEMORANDUM

SUBJECT: Data Validation for Former Nike Launch Site #81 SI,

Case# 35417, SDG: MJ73W0, Inorganic Analysis

FROM: Donald Matheny, Chemist

Technical Support Unit, OEA

TO: Ken Marcy, Site Assessment Manager

Office of Environmental Cleanup (ECL-115)

CC: Mark Woodke, Ecology & Environment

The data validation of inorganic analyses for the above sample set is complete. Two (2) sediment samples were analyzed for total elements by Bonner Analytical, Hattiesburg, MS. Sample numbers for this delivery group are as follows:

MJ73W0 MJ73W2

DATA QUALIFICATIONS

The following comments refer to the lab's performance in meeting the quality control specifications outlined in the "CLP Statement of Work (CLP-SOW) for Inorganic Analysis, rev. ILM05.3", the "USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review" and the judgment of the reviewer. The comments presented herein are based on the information provided for the review.

1.0 TIMELINESS - Acceptable

The holding time from the date of collection to the date of digestion and analyses were met for all elements (180 days, mercury 28 days). Samples were collected on 6/6/06. ICP-AES analysis was conducted on 6/9/06 and mercury analysis on 6/14/06.

8.0 ICP-AES SERIAL DILUTION

A five-fold serial dilution was analyzed for sample MJ73W2. Percent differences (\leq 10%) met the control limits (\leq 10%) for all applicable elements with the exception of copper (24%) and zinc (20%). Copper and zinc data were qualified (JL) and may be biased low.

9.0 ASSESSMENT SUMMARY

The following is a summary of qualified data:

Arsenic data were qualified (U) due to the detected presence of this analyte in the preparation and/or instrument verification blanks.

Antimony, manganese and selenium data were qualified (J or UJ) due to low matrix spike recoveries. Values for these elements may be biased low.

Copper and zinc were qualified (JL) due to high percent differences for the serial dilution analysis. Reported values for these analytes may be biased low.

DATA QUALIFIERS

- U The material was analyzed for, but was not detected above the associated value. The associated value is either the sample quantitation limit or the sample detection limit.
- J The associated value is an estimated quantity.
- R The data are unusable. The analyte may or may not be present in the sample.
- UJ The analyte was analyzed for, but was not detected. The associated value is an estimate and may be inaccurate or imprecise.

PROJECT SPECIFIC DATA QUALIFIERS:

- L Low bias.
- H High bias.
- K Unknown Bias.
- Q Detected concentration is below the method reporting limit/ Contract Required Quantitation Limit.

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MJ73W2

| Lab Name: | Bonner A | nalytical | Testing Compa | Contract: | 68W0206 | 57 | | |
|-------------|------------|-------------|-----------------|----------------|-------------|-------|--------|--------|
| Lab Code: | BONNER | Case No. | : 35417 | NRAS No.: | | SD | G NO.: | MJ73W0 |
| Matrix (soi | il/water): | SOIL | | Lab Sample ID: | BT397 | 91 | | |
| Level (low/ | med): | LOW | | Date Received: | 06/08 | /2006 | | |
| Solids: | 75. | 4 | | | · | | | |
| Concentrati | on Units (| ug/L or mg/ | kg dry weight): | MG/KC | | | | |
| | CAS N | o. | Analyte | Concentration | С | Q | м | |
| | 7429- | 90-5 | Aluminum | 20400 | | | P | 1 |
| | 7440- | 36-0 | Antimony | 8.0 | JF- | JEN A | _ P |] |
| | 7440- | 38-2 | Arsenic | 1.6 | | u | P |] |
| | 7440- | 39-3 | Barium | 81.1 | | | P | 1 |
| | | | | | | | | |

7-4-06

7440-41-7 Beryllium 0.41 Ja P 7440-43-9 Cadmium 0.13 J Ja P 7440-70-2 Calcium 4820 35.9 P 7440-47-3 Chromium 7440-48-4 Cobalt 10.7 P & JL 7440-50-8 P Copper 26.8 7439-89-6 21900 P Iron P 7439-92-1 Lead 2.4 P 7439-95-4 6370 Magnesium P 7439-96-5 ** JL Manganese 303 CV 7439-97-6 0.061 -3-Mercury Ja P 7440-02-0 Nickel 60.5 P 7440-09-7 Potassium 970 ₽ 7782-49-2 Selenium 4.6 **-**A UTL Ū P 7440-22-4 Silver 1.3 P 7440-23-5 Sodium 366 J Ja P 7440-28-0 Thallium σ 3.3 7440-62-2 Vanadium P 49.3 7440-66-6 Zinc 48.8 P # JL

| Color Before: | BROWN | Clarity Before: | Texture: | MEDIUM |
|---------------|--------------|-----------------|----------------|--------|
| Color After: | AETTOM | Clarity After: | Artifacts: | YES |
| Comments: | PLANT MATTER | | | |
| | | | | |



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International Specialists in the Environment

720 Third Avenue, Suite 1700, Seattle, WA 98104

Tel: (206) 624-9537, Fax: (206) 621-9832

MEMORANDUM

DATE:

July 20, 2006

FROM:

Mark Woodke, START-3 Chemist, E & E, Seattle, Washington / MW

SUBJ:

Inorganic Data Summary Check, Former Nike Launch Site #81,

Poulsbo, Washington

REF:

TDD: 06-01-0035

PAN: 002233.0051.01SR

The data summary check of 3 water samples collected from the Former Nike Launch Site #81 in Poulsbo, Washington, has been completed. Target analyte list (TAL) metals analyses were performed by Bonner Analytical, Inc., Hattiesburg, Mississippi.

The samples were numbered:

MJ73T9

MJ73W1

MJ73W3

No discrepancies were noted.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION 10

1200 Sixth Avenue Seattle, Washington 98101

July 6, 2006

Reply To

Attn. Of: OEA-095

MEMORANDUM

SUBJECT: Data Validation for Former Nike Launch Site #81 SI,

Case# 35417, SDG: MJ73T9, Inorganic Analysis

FROM:

Donald Matheny, Chemist

Technical Support Unit, OEA

TO:

Ken Marcy, Site Assessment Manager

Office of Environmental Cleanup (ECL-115)

CC:

Mark Woodke, Ecology & Environment

The data validation of inorganic analyses for the above sample set is complete. Three (3) water samples were analyzed for total elements by Bonner Analytical, Hattiesburg, MS. Sample numbers for this delivery group are as follows:

MJ73T9 MJ73W1 MJ73W3

DATA QUALIFICATIONS

The following comments refer to the lab's performance in meeting the quality control specifications outlined in the "CLP Statement of Work (CLP-SOW) for Inorganic Analysis, rev. ILM05.3", the "USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review" and the judgment of the reviewer. The comments presented herein are based on the information provided for the review.

1.0 TIMELINESS - Acceptable

The holding time from the date of collection to the date of digestion and analyses were met for all elements (180 days, mercury 28 days). Samples were collected on 6/6/06. ICP-AES and mercury analyses were conducted on 6/13/06.

8.0 ICP-AES SERIAL DILUTION

A five-fold serial dilution was analyzed for sample MJ73W3. Percent differences (\leq 4%) met the control limits (\leq 10%) for all applicable elements with the exception of aluminum (18%) and calcium (37%). Aluminum and calcium values were qualified (JL) and may be biased low.

9.0 ASSESSMENT SUMMARY

The following is a summary of qualified data:

A number of reported values for aluminum and zinc were qualified (U) due to the detected presence of these analytes in the preparation and/or instrument verification blanks.

Arsenic data were qualified (J or UJ) due to a low matrix spike recovery. Arsenic values may be biased low.

Aluminum and calcium data were qualified (JL) due to high percent differences for the serial dilution analysis. Reported values for these analytes may be biased low.

DATA QUALIFIERS

- U The material was analyzed for, but was not detected above the associated value. The associated value is either the sample quantitation limit or the sample detection limit.
- J The associated value is an estimated quantity.
- R The data are unusable. The analyte may or may not be present in the sample.
- UJ The analyte was analyzed for, but was not detected. The associated value is an estimate and may be inaccurate or imprecise.

PROJECT SPECIFIC DATA QUALIFIERS:

- L Low bias.
- H High bias.
- K Unknown Bias.
- Q Detected concentration is below the method reporting limit/ Contract Required Quantitation Limit.

USEPA - CLP

1A-IN

INORGANIC ANALYSIS DATA SHEET

000010

EPA SAMPLE NO.

| MJ7 | 3W1 | | | |
|-----|-----|--|--|--|

| ab Name: Bo | nner Analytical | L Testing Compa | Contract: | 68W020 | 67 | | |
|----------------|------------------|-------------------|---------------------------------------|--------------|---------------------------------------|-------------|-------------|
| ab Code: BOI | NNER Case N | o.: <u>35417</u> | NRAS No.: | | SDG | NO.: | MJ73T9 |
| atrix (soil/wa | ater): WATER | | Lab Sample ID: | BT39 | 793 | _ | |
| evel (low/med) |): LOW | | Date Received: | 06/0 | 8/2006 | _ | |
| Solids: | 0.0 | | | | | | |
| - | | g/kg dry weight): | UG/L | | | | |
| oncentration (| Onics (ug/l or m | g/kg dry werght/: | · · · · · · · · · · · · · · · · · · · | | | | - |
| | CAS No. | Analyte | Concentration | С | Q | М | |
| | 7429-90-5 | Aluminum | 614 | | \$ J. | P | |
| | 7440-36-0 | Antimony | 60.0 | Ū | | P |] |
| | 7440-38-2 | Arsenic | 10.0 | ט | AF U.J.L | P | |
| | 7440-39-3 | Barium | 5.8 | 3 | Ба | P | |
| | 7440-41-7 | Beryllium | 5.0 | ס | | P |] |
| | 7440-43-9 | Cadmium | 5.0 | ם | | P |] |
| | 7440-70-2 | Calcium | 6390 | | サブレ | P |] |
| | 7440-47-3 | Chromium | 1.4 | 4 | Ja | P |] |
| | 7440-48-4 | Cobalt | 50.0 | ט | | P | |
| | 7440-50-8 | Copper | 2.1 | * | Ja | P |] |
| | 7439-89-6 | Iron | 452 | | | P | 7-6-06 |
| | 7439-92-1 | Lead | 10.0 | ָּט | | P | 7-6. |
| | 7439-95-4 | Magnesium | 1020 | 12 | Ja | P |] |
| | 7439-96-5 | Manganese | 24.6 | | | P | 1 |
| | 7439-97-6 | Mercury | 0.032 | J.J. | 5.0 | CV | |
| | 7440-02-0 | Nickel | 1.6 | 8 | рt | P | Ī |
| | 7440-09-7 | Potassium | 123 | æ | Ja | P | |
| | 7782-49-2 | Selenium | 35.0 | Ū | | P | |
| | 7440-22-4 | Silver | 10.0 | Ū | | P | |
| | 7440-23-5 | Sodium | 2180 | 18 | Ja | P | |
| | 7440-28-0 | Thallium | 25.0 | ט | · · · · · · · · · · · · · · · · · · · | P | 1 |
| | 7440-62-2 | Vanadium | 2.3 | ستد | Ja | P | |
| | 7440-66-6 | Zinc | 6.5 | 3 | u | P | |
| | | | | | | <u> </u> | |
| Color Before: | COLORLESS | Clarity Befor | e: CLEAR | | Texture: | | |
| Color After: | COLORLESS | Clarity After | : CLEAR | | Artifacts: | | |
| Comments: | | | | | · · · · · · · · · · · · · · · · · · · | · | |
| | | | | | | | |
| | | | | | | | |



8

720 Third Avenue, Suite 1700, Seattle, WA 98104

Tel: (206) 624-9537, Fax: (206) 621-9832

MEMORANDUM

DATE:

July 28, 2006

FROM:

Mark Woodke, START-3 Chemist, E & E, Seattle, Washington

SUBJ:

Organic Data Quality Assurance Review, Former Nike Launch Site #81,

Poulsbo, Washington

REF:

TDD: 06-01-0035

PAN: 002233.0051.01SR

The data quality assurance review of 12 water and 2 soil samples collected from the Former Nike Launch Site #81 in Poulsbo, Washington, has been completed. Unsymmetrical dimethyl hydrazine (UDMH – STL SOP UDMH) analyses were performed by STL-Denver, Arvada, Colorado.

The samples were numbered:

| 06234050 | 06234051 | 06234052 | 06234053 | 06234054 | 06234055 |
|----------|----------|----------|----------|----------|----------|
| 06234056 | 06234057 | 06234061 | 06234062 | 06234063 | 06234064 |
| 06234065 | 06234066 | | | | |

Data Qualifications:

1. Sample Holding Times: Acceptable.

The samples were maintained and received within the QC limits of $4^{\circ}\text{C} \pm 2^{\circ}\text{C}$. The samples were collected on June 6, 2006, were extracted between June 12 and 14, 2006, and were analyzed for UDMH on June 13 or 15, 2006, therefore meeting QC criteria of less than 7 days between collection and extraction (14 days for soils) and less than 40 days between extraction and analysis for UDMH.

2. Initial Calibration: Acceptable.

The correlation coefficients were greater than 0.995.

3. Continuing Calibration: Acceptable.

All initial and continuing calibration verifications were within QC limits of 80% to 120%.

5. Blanks: Acceptable.

A method blank was analyzed for each 20 sample batch per matrix. There were no detections in any method blank.

6. Matrix Spike (MS)/Matrix Spike Duplicate (MSD) and Laboratory Control Sample (LCS)/LCS Duplicate (LCSD) Analysis: Acceptable.

MS, MSD, LCS, and LCSD analyses were performed per SDG or per matrix per concentration level, whichever was more frequent. All recoveries were within QC limits.

7. Duplicate Analysis: Acceptable.

Laboratory spike duplicate analysis was performed per SDG or per matrix per concentration level, whichever was more frequent. All duplicate results were within QC limits.

8. Overall Assessment of Data for Use

The overall usefulness of the data is based on the criteria outlined in the analytical method, and, when applicable, the Office of Emergency and Remedial Response Publication "USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review". Based upon the information provided, the data are acceptable for use with the above stated data qualifications.

Data Qualifiers and Definitions

U - The material was analyzed for but was not detected. The associated numerical value is the sample quantitation limit.



Lab Name:

STL DENVER

Client Sample ID:

06234050

Lot/SDG Number:

D6F080179

Lab Sample ID:

D6F080179-006

Matrix:

WATER

Lab WorkOrder:

H6058

% Moisture:

<u>N/A</u>

06/06/06 08:35

Basis:

Wet

Date/Time Collected:

<u>UDMH</u>

Date/Time Received:

06/08/06 09:15

Analysis Metbod:

Date/Time Leached:

06/12/06 21:11

Unit: QC Batch ID: ug/L

Date/Time Extracted: Date/Time Analyzed:

06/13/06 10:45

Sample Aliquot:

6164589

Instrument ID:

<u>1C4</u>

Dilution Factor: 1

| CAS No. | Analyte | Conc. | MDL | RL | Q |
|---------|---------|-------|-----|------|---|
| 57-14-7 | UDMH | 2.3 | 2.3 | . 10 | U |

Result is less than the method detection limit (MDL).



Lab Name:

STL DENVER

Client Sample ID:

06234051

Lot/SDG Number:

D6F080179

Lab Sample ID:

D6F080179-007

Matrix:

WATER

Lab WorkOrder:

H606A

% Moisture:

N/A

Date/Time Collected:

06/06/06 08:55

Basis:

Wet

Date/Time Received:

06/08/06 09:15

Analysis Method: Unit:

<u>UDMH</u>

Date/Time Leached:

06/12/06 21:11

ue/L

Date/Time Extracted:

QC Batch ID:

Date/Time Analyzed:

06/13/06 11:41

Sample Aliquot:

6164589

Instrument ID:

<u>IC4</u>

Dilution Factor:

1

| CAS No. | Analyte | Сопс | MDL | RL | Q |
|---------|---------|------|-----|----|---|
| 57-14-7 | UDMH | 2.3 | 2.3 | 10 | υ |

U Result is less than the method detection limit (MDL).



Lab Name:

STL DENVER

Client Sample ID:

06234052

Lot/SDG Number:

D6F080179

Lab Sample ID:

D6F080179-008

Matrix:

WATER

Lab WorkOrder:

H606F

% Moisture:

<u>N/A</u>

06/06/06 10:35

Basis:

Wet

Date/Time Collected: Date/Time Received:

06/08/06 09:15

Analysis Method:

<u>UDMH</u>

Date/Time Leached:

Unit:

<u>ug/L</u>

Date/Time Extracted:

06/12/06_21:11

QC Batch ID:

<u>6164589</u> -

Date/Time Analyzed:

06/13/06 14:01

Sample Aliquot: Dilution Factor:

1

Instrument ID:

IC4

| CAS No. | Analyte | Conc. | MDL | RL | Q |
|---------|---------|-------|-----|----|---|
| 57-14-7 | UDMH | 2.3 | 2.3 | 10 | U |

U Result is less than the method detection limit (MDL).

(2006



Lab Name:

STL DENVER

Client Sample ID:

06234053

Lot/SDG Number:

D6F080179

Lab Sample ID:

D6F080179-001

Matrix:

WATER

Lab WorkOrder:

H605W

% Moisture:

<u>N/A</u>

Date/Time Collected:

06/06/06 15:00

Basis:

<u>Wet</u>

Date/Time Received:

06/08/06_09:15

Analysis Method:

UDMH

Date/Time Leached:

06/12/06 21:11

Unit:

<u>ug/L</u>

1

Date/Time Extracted:

QC Batch ID:

Date/Time Analyzed:

06/13/06_05:36

Sample Aliquot:

6164589

Instrument ID:

<u>IC4</u>

Dilution Factor:

| CAS No. | Analyte | Conc. | MDL | RL | Q |
|---------|---------|-------|-----|----|---|
| 57-14-7 | UDMH . | 2.3 | 2.3 | 10 | U |

U Result is less than the method detection limit (MDL).

Mh 62006



Lab Name:

STL DENVER

Client Sample ID:

06234054

Lot/SDG Number:

D6F080179

Láb Sample ID:

D6F080179-004

Matrix:

SOLID

Lab WorkOrder:

H6054

% Moisture:

<u>12</u>

Date/Time Collected: Date/Time Received:

06/06/06 15:15

Basis:
Analysis Method:

<u>Dry</u> <u>UDMH</u>

Date/Time Leached:

06/08/06 09:15

Unit:

ug/kg

Date/Time Extracted:

06/13/06 16:00

QC Batch ID:

21/2202

Date/Time Analyzed:

06/15/06 04:57

Sample Aliquot:

<u>6166397</u>

Instrument ID:

<u>1C4</u>

Dilution Factor:

<u>5</u>

| CAS No. | Analyte | Conc. | MDL | RL | Q |
|---------|---------|-------|------|-----|-----|
| 57-14-7 | UDMH | 72 | . 72 | 570 | USm |

U Result is less than the method detection limit (MDL).

G Elevated reporting limit. The reporting limit is elevated due to matrix interference.

MW 6-20-06



Lab Name:

STL DENVER

Client Sample ID:

06234055

Lot/SDG Number:

D6F080179

Lab Sample ID:

D6F080179-002

Matrix:

WATER

Lab WorkOrder:

H6051

% Moisture:

<u>N/A</u>

Date/Time Collected:

06/06/06:15:20

Basis:

Wet

Date/Time Received:

06/08/06 09:15

Analysis Method:

UDMH

Date/Time Leached:

06/12/06 21:11

Unit:

ug/L

Date/Time Extracted:

QC Batch ID:

6164589

Date/Time Analyzed:

06/13/06 06:32

Sample Aliquot: Dilution Factor:

1

Instrument ID:

IC4

| CAS No. | Analyte | Conc. | MDL | RL | Q |
|---------|---------|-------|-----|----|---|
| 57-14-7 | UDMH | 2.3 | 2.3 | 10 | Ū |

 \cdot \mathbf{U} Result is less than the method detection limit (MDL).



Lab Name:

STL DENVER

Client Sample ID:

06234056

Lot/SDG Number:

D6F080179

Lab Sample ID:

D6F080179-005

Matrix:

SOLID

Lab WorkOrder:

H6056

% Moisture:

<u>21</u>

Date/Time Collected:

06/06/06 15:30

Basis:

Analysis Method:

<u>Drv</u> <u>UDMH</u> Date/Time Received: Date/Time Leached:

06/08/06 09:15

Unit:

ug/kg

06/13/06 16:00

QC Batch ID:

5

Date/Time Extracted: Date/Time Analyzed:

06/15/06_06:49

Sample Aliquot:

6166397

Instrument ID:

<u>1C4</u>

Dilution Factor:

| CAS No. | Analyte | Conc. | MDL | RL | Q |
|---------|---------|-------|-----|-----|------|
| 57-14-7 | UDMH | 81 | 81 | 640 | Ugnz |

U Result is less than the method detection limit (MDL).

G Elevated reporting limit. The reporting limit is elevated due to matrix interference.



Lab Name:

STL DENVER

Client Sample ID:

06234057

Lot/SDG Number:

D6F080179

Lab Sample ID:

D6F080179-003

Matrix:

WATER

Lab WorkOrder:

H6053

% Moisture:

N/A

Date/Time Collected:

06/06/06 14:45

Basis:

Wet

Date/Time Received:

06/08/06 09:15

Analysis Method:

UDMH

Date/Time Leached:

Unit:

ug/L

1 .

Date/Time Extracted:

06/12/06 21:11

QC Batch ID:

6164589

Date/Time Analyzed:

06/13/06 08:25

Sample Aliquot:

Dilution Factor:

Instrument ID:

<u>IC4</u>

| CAS No. | Analyte | Conc. | MDL | RL | Q |
|---------|---------|-------|-----|----|---|
| 57-14-7 | UDMH | 2.3 | 2.3 | 10 | U |

U Result is less than the method detection limit (MDL).

6-20-06



Lab Name:

STL DENVER

Client Sample ID:

06234061

Lot/SDG Number:

D6F080179

Lab Sample ID:

D6F080179-009

Matrix:

WATER

Lab WorkOrder:

H606G

% Moisture:

<u>N/A</u> -

Date/Time Collected:

06/06/06 11:30

Basis:

<u> Wet</u>

Date/Time Received: Date/Time Leached:

06/08/06 09:15

Unit:

<u>UDMH</u>

1

Date/Time Extracted:

06/12/06 21:11

QC Batch ID:

Analysis Method:

ug/L

Date/Time Analyzed:

06/13/06 14:57

6164589

Instrument ID:

<u>IC4</u>

Sample Aliquot:

Dilution Factor:

| CAS No. | Analyte | Conc. | MDL | RL | Q | |
|---------|---------|-------|-----|----|---|---|
| 57-14-7 | UDMH | 2.3 | 2.3 | 10 | U | 1 |

U Result is less than the method detection limit (MDL).

(J/ W 520-06



Lab Name:

STL DENVER

Client Sample ID:

06234062

Lot/SDG Number:

D6F080179

Lab Sample ID:

D6F080179-010

Matrix:

WATER

Lab WorkOrder:

H606J

% Moisture:

<u>N/A</u>

Date/Time Collected:

06/06/06 10:30

Basis:

Wet

Date/Time Received:

06/08/06 09:15

Analysis Method:

<u>UDMH</u>

Date/Time Leached:

Unit:

ug/L

Date/Time Extracted:

06/12/06 21:11

QC Batch ID:

6164589

Date/Time Analyzed:

06/13/06 16:50

Sample Aliquot:

Instrument ID:

<u> 1C4</u>

| Dilution Fac | tor: <u>1</u> |
|--------------|---------------|
|--------------|---------------|

| CAS No. | Analyte | Conc. | MDL | RL | Q |
|---------|---------|-------|-----|----|---|
| 57-14-7 | UDMH | 2.3 | 2.3 | 10 | U |

U Result is less than the method detection limit (MDL).



Lab Name:

STL DENVER

Client Sample ID:

06234063

Lot/SDG Number:

D6F080179

Lab Sample ID:

D6F080179-011

Matrix:

WATER

Lab WorkOrder:

<u>H606K</u>

% Moisture:

<u>N/A</u>

Date/Time Collected:

06/06/06 10:50

Basis:

Wet

Date/Time Received:

06/08/06 09:15

Analysis Method:

WEI UDMH

Date/Time Leached:

06/10/06 01 11

Unit:

ug/L

1

Date/Time Extracted:

06/12/06 21:11

QC Batch ID:

6164589

Date/Time Analyzed:

06/13/06 17:46

Sample Aliquot:

Dilution Factor:

Instrument ID:

<u>IC4</u>

| CAS No. | Analyte | Сопс. | MDL | RL | Q |
|---------|---------|-------|-----|----|---|
| 57-14-7 | UDMH | 2.3 | 2.3 | 10 | υ |

U Result is less than the method detection limit (MDL).

MW 6-2006



Ecology and Environment, Inc. Wet Chemistry Analysis Data Sheet

Lab Name:

STL DENVER

Client Sample ID:

06234064

Lot/SDG Number:

D6F070196

Lab Sample ID:

D6F070196-001

Matrix:

WATER

Lab WorkOrder:

<u>H6V22</u>

% Moisture:

<u>N/A</u>

O 4 FFR . Called

10 V 222

Basis:

Wet

Date/Time Collected:

06/06/06_13:00

Analysis Method:

UDMH

Date/Time Received:
Date/Time Leached:

06/07/06 09:00

Unit:

UDIVIT

Date/Time Extracted:

06/12/06 21:11

QC Batch ID:

ng/L

Date/Time Analyzed:

06/13/06 02:48

Sample Aliquot:

6164589

Instrument ID:

<u>IC4</u>

Dilution Factor: 1

| CAS No. | Апајуте | Conc. | MDL | RL | Q |
|---------|---------|-------|-----|----|---|
| 57-14-7 | UDMH | 2.3 | 2.3 | 10 | υ |

U Result is less than the method detection limit (MDL).

MW 6-20-06



Ecology and Environment, Inc. Wet Chemistry Analysis Data Sheet

Lab Name:

STL DENVER

Client Sample ID:

06234065

Lot/SDG Number:

D6F070196

Lab Sample ID:

D6F070196-002

Matrix:

WATER

Lab WorkOrder:

H6V26

% Moisture:

N/A

Basis:

Wet

Date/Time Collected: Date/Time Received:

06/06/06 13:30

Analysis Method:

UDMH

Date/Time Leached:

06/07/06 09:00

Unit:

ng/L

Date/Time Extracted:

06/12/06 21:11

QC Batch ID:

Date/Time Analyzed:

06/13/06 03:44

Sample Aliquot:

6164589

Instrument ID:

<u>IC4</u>

Dilution Factor: 1

| CAS No. | Analyte | Conc. | MDL | RL | Q |
|---------|---------|-------|-----|----|---|
| 57-14-7 | UDMH | 2.3 | 2.3 | 10 | Ū |

U Result is less than the method detection limit (MDL).

MW6-20-06



Ecology and Environment, Inc. Wet Chemistry Analysis Data Sheet

Lab Name:

STL DENVER

Client Sample ID:

06234066

Lot/SDG Number:

D6F080179

Lab Sample ID:

D6F080179-012

Matrix:

WATER

Lab WorkOrder:

H606V

% Moisture:

<u>N/A</u>

Date/Time Collected:

06/06/06 09:55

Basis:

Wet **UDMH** Date/Time Received: Date/Time Leached:

06/08/06 09:15

Analysis Method: Unit:

ug/L

Date/Time Extracted:

06/14/06 20:32

QC Batch ID:

Date/Time Analyzed:

06/15/06 09:09

6166399

Instrument ID:

<u>1C4</u>

Sample Aliquot:

Dilution Factor: 5

| CAS No. | Analyte | Conc. | MDL | RL | Q |
|---------|---------|-------|-----|------|------|
| 57-14-7 | UDMH | 12 | 12 | . 50 | Uæmw |

U Result is less than the method detection limit (MDL).

G Elevated reporting limit. The reporting limit is elevated due to matrix interference.

111W 1-701Dh



ecology and environment, inc.

International Specialists in the Environment

720 Third Avenue, Suite 1700, Seattle, WA 98104

Tel: (206) 624-9537, Fax: (206) 621-9832

MEMORANDUM

DATE:

July 28, 2006

FROM:

Mark Woodke, START-3 Chemist, E & E, Seattle, Washington

SUBJ:

Organic Data Summary Check, Former Nike Launch Site #81,

Poulsbo, Washington

REF:

TDD: 06-01-0035

PAN: 002233.0051.01SR

The data summary check of 12 samples collected from the Former Nike Launch Site #81 in Poulsbo, Washington, has been completed. N-nitrosodimethylamine (NDMA) analyses were performed by the Manchester Environmental Laboratory (MEL), Port Orchard, Washington.

The samples were numbered:

06234050 06234051

4051 06234052

06234053

06234055

06234057

06234061

06234062

06234063

06234064

06234065

06234066

No discrepancies were noted.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION 10 LABORATORY

7411 Beach Dr. East Port Orchard, Washington 98366

MEMORANDUM

SUBJECT:

Data Release for NDMA Results from the USEPA Region 10

Laboratory

PROJECT NAME:

Former Nike Launch Site

PROJECT CODE:

TEC-877A

FROM:

Gerald Dodo, Chemistry Supervisor

USEPA Region 10 Laboratory

TO:

Ken Marcy, Project Officer

Office of Environmental Cleanup

Site Cleanup Unit 2, USEPA Region 10

CC:

Mark Woodke, Ecology & Environment

I have authorized release of this data package. Attached you will find the NDMA results for the Former Nike Launch Site project samples collected on 06/06/2006. For further information regarding the attached data, contact Randy Cummings at (360)871-8707. For the schedule of the remaining analyses, contact Gerald Dodo at (360)871-8728.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION 10 LABORATORY

7411 Beach Dr. East Port Orchard, Washington 98366

July 11, 2006

MEMORANDUM

SUBJECT: Data Review for the NDMA Analysis of Former Nike Launch Site.

Project Codes: TEC-877A Account Code: 06T10P302DD2C10ZZLA00

FROM: Randy Cummings, Chemist, Laboratory

Office of Environmental Assessment, USEPA Region 10

TO: Ken Marcy, Project Officer

Office of Environmental Cleanup, Site Cleanup Unit 2, USEPA Region 10

CC: Mark Woodke, Ecology & Environment

The data review of the N-nitrosodimethylamine (NDMA) analysis results for the Former Nike Launch Site water samples has been completed. The samples were analyzed by the USEPA Region 10 Laboratory located in Manchester, WA using USEPA SW846 Method 8270C (Manchester SOPs Or_P001B version 3, and Or_270C, version 3).

The data for the following sample number is reviewed in this report.

06234050 06234051 06234052 06234053 06234055 06234057 06234061 06234062 06234063 06234064 06234065 06234066

DATA QUALIFICATIONS

The following comments refer to laboratory performance in meeting the quality control specifications outlined in the analytical method, the Manchester Laboratory Quality Assurance Manual, standard operating procedures, and professional judgment.

The conclusions presented herein are based on the information provided for the review.

Holding Time - Acceptable

The samples were extracted within seven days of collection. Extracts have a holding time maximum of 40 days from the time of preparation. The sample was analyzed within this criterion.

GC/MS Tuning and Performance - Acceptable

The tuning summary agreed with the raw data. All decafluorotriphenylphosphine ion abundance ratios met criteria. Sample analyses were preceded by a tune less than 12 hours prior to analysis.

Initial Calibration - Acceptable

An initial calibration was performed on 06Jun06 for the target and surrogate compounds and met the criteria outlined in the SOP (Or_270C, version 3). Average relative response factors (RRFs) were ≥0.05. Percent relative standard deviations (%RSDs) of the RRFs were ≤15%. Coefficients of Determination were >0.99.

Second source check analyses resulted with percent differences from the expected values of ≤30% for all compounds.

Continuing Calibration - Acceptable

The continuing calibration check met the criteria for frequency of analysis and relative retention time (RRT) windows for all target and surrogate compounds. The RRFs were ≥ 0.05 and the percent accuracies were 80-120% of the true values.

Blanks - Acceptable

Two method blanks were prepared and analyzed to evaluate the potential for laboratory contamination and the effect on sample results. Target compounds detected in the samples were reported without qualification if the sample result area integration exceeded ten times that of the blank for common contaminates (e.g., phthalates) or five times that of the blank for the other target compounds. Detected sample results were qualified 'U' if the area integration was below these criteria. The sample concentration or the sample quantitation limit, whichever is greater, was reported as the qualified result.

Surrogates - Acceptable

Surrogate recoveries are used to help in the evaluation of laboratory performance on individual samples. For this project two surrogates were used: d_4 -1,2-dichlorobenzene and ${}^2C_{13}/d_6$ -NDMA. The SOP calls for spike concentration of 20µg/sample, whereas the samples in this set were spiked at 4µg/sample. However, the recoveries met the SOP criteria at lower spike level for d4-1,2-dichlorobenzene (20 – 130%) and were within the NDMA acceptance limits for ${}^2C_{13}/d_6$ -NDMA (50 – 70%). Therefore no qualification resulted.

Matrix Spike/Matrix Spike Duplicate (MS/MSD) - Acceptable

Matrix spiked samples are used to evaluate matrix affects on analyte recovery. One pair of matrix spiked samples was prepared for this set. This pair met the criteria for accuracy (50 – 70%) using the two standard deviation range provided in the SOP for fortified blanks, and precision (35%) from the criterion provided in the QaPP).

Laboratory Control Sample - Acceptable

Data for laboratory control samples (LCS) are generated to provide ongoing information on the accuracy of the analytical method and the laboratory performance. Four spiked reagent water analyses were performed as LCSs (two pairs: OBF6163F1 and OBF6163F2, spiked at 4ppB; and OBF6163F3 and OBF6163F4, spiked at 0.8ppB). The LCS recoveries were compared against criteria based on historical results from pooled water extraction recoveries (50 – 70%, spiked at 16ppB).

Sample OBF6163F4 had recoveries below the established range. The deviation was not judged to be critical to evaluating the method performance for this project since one of the surrogates was an isotope labeled form of NDMA. The labeled form of NDMA should accurately reflect the expected recovery of the un-labeled compound. Recovery of this surrogate was within the established range for all of the samples, blanks and spiked blanks except OBF6163F4. Recovery for this surrogate in sample OBF6163F4 was low proportionally to the un-labeled compound, thus suggesting that the results were isolated to the sample and not indicative of an overall problem for the project. Therefore no qualification was applied.

Internal Standard Performance - Acceptable

The performance criteria for internal standards ensure that GC/MS sensitivity and response are stable during every analytical run. The retention time variations of all internal standards were within 30 seconds of the continuing calibration standard. The percent areas of all the internal standards were within the specified 50% to 200% of the continuing calibration standard.

Target Compound Identification - Acceptable

The RRTs for all detected target compounds were within acceptable limits of the initial or continuing calibration standards. No reference spectra data base was created. Identifications were based on selected ion ratios. Criteria were met, or judged acceptable, for ion abundance matching. No target compounds were detected.

Compound Quantitation - Acceptable

The initial calibration functions were used for calculations. Reported quantitation limits were based on the initial calibration standards and sample size used for the analysis. All manual integrations were reviewed and judged to be appropriate.

Overall Assessment

All requirements for data qualifiers from the preceding sections were accumulated. Each sample data summary sheet and each compound was checked for positive or negative results. From this, the overall need for data qualifiers for each analysis was determined. In cases where more than one of the preceding sections required data qualifiers, the most restrictive qualifier has been added to the data.

In general, all unqualified data can be used without restriction. The usefulness of qualified data should be treated according to the severity of the qualifier. Should questions arise regarding the qualification of data and its relation to the usefulness, the reader is encouraged to contact Randy Cummings at the Region 10 Laboratory, phone number (360) 871-8707.

| Qualifier/ Remark Code | Definition (Codes Assigned to Values) | | | | |
|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|
| U | The analyte was not detected at or above the reported value. | | | | |
| J | The identification of the analyte is acceptable; the reported value is an estimate. | | | | |
| ΠΊ | The analyte was not detected at or above the reported value. The reported value is an estimate. | | | | |
| R | The presence or absence of the analyte can not be determined from the data due to severe quality control problems. The data are rejected and considered unusable. <u>No value is reported with this qualification</u> . | | | | |
| NJ | There is presumptive evidence that the analyte is present; the analyte is reported as a tentative identification. The reported value is an estimate. | | | | |
| NA | Not Applicable, the parameter was not analyzed for, or there is no analytical result for this parameter. No value is reported with this qualification. | | | | |

Manchester Environmental Laboratory Report by Parameter for Project TEC-877A

Page 1 of

20

Project Code:

TEC-877A

FORMER NIKE LAUNCH SITE #81

Collected: Matrix:

6/6/06

Project Name: Project Officer:

KEN MARCY

Sample Number:

Liquid 06234050

Account Code:

06T10P302DD2C10ZZLA00

Type:

Reg sample

| | | | Result | Units | Olfr | |
|---------------|---------------|--------------------------------------|--------|------------------------|--------------------|--|
| GCMS | | | | | | |
| Parameter : | Semi-volatile | es | | Container ID: 1N | | |
| Method : | 8270 | BNA | | Analysis Date: 6/13/20 | | |
| Prep Method : | 3510 | Separatory funnel liq-liq extraction | | Pr | ep Date: 6/12/2006 | |
| Analytes(s): | 62759 | N-Nitrosodimethylamine | 0.1 | ug/L | U | |
| Surrogate(s): | 95501 | Benzene, 1,2-dichloro- | 56 | %Rec | | |
| | *17829059 | D6-13C2 N-Nitrosodimethylamine | 57 | %Rec | | |

Manchester Environmental Laboratory Report by Parameter for Project TEC-877A

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Project Code: Project Name: TEC-877A

FORMER NIKE LAUNCH SITE #81

Collected: Matrix:

6/6/06

Project Officer:

KEN MARCY

Sample Number:

Liquid 06234051

Account Code:

06T10P302DD2C10ZZLA00

Type:

Reg sample

| • | | | Result | Units | Olfr | |
|---------------|---------------|--------------------------------------|--------|--------------------------|------|--|
| GCMS | | • | | | | |
| Parameter : | Semi-volatile | es | | Container ID: 1N | | |
| Method : | 8270 | BNA | | Analysis Date: 6/13/2006 | | |
| Prep Method : | 3510 | Separatory funnel liq-liq extraction | | Prep Date: 6/12/200 | | |
| Analytes(s): | 62759 | N-Nitrosodimethylamine | 0.1 | ug/L | U | |
| Surrogate(s): | 95501 | Benzene, 1,2-dichloro- | 63 | %Rec | | |
| | *17829059 | D6-13C2 N-Nitrosodimethylamine | 60 | %Rec | | |

Manchester Environmental Laboratory Report by Parameter for Project TEC-877A

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20

Project Code:

TEC-877A

Project Name:

FORMER NIKE LAUNCH SITE #81

Project Officer:
Account Code:

Station Description:

KEN MARCY

06T10P302DD2C10ZZLA00

Collected:

Matrix:

Liquid

Sample Number:

06234051

Type:

Matrix Spike

| | | | Result | Units | Qlfr | |
|---------------|------------------|--------------------------------------|--------|-------------------------|-------------------|--|
| GCMS | | • | | | | |
| Parameter : | : Semi-volatiles | | | Conta | iner ID: 3N | |
| Method : | 8270 | BNA | | Analysis Date: 6/14/200 | | |
| Prep Method : | 3510 | Separatory funnel liq-liq extraction | | Pre | ep Date: 6/12/200 | |
| Surrogate(s): | 95501 | Benzene, 1,2-dichloro- | 59 | %Rec | | |
| - · · · | *17829059 | D6-13C2 N-Nitrosodimethylamine | 58 | %Rec | | |
| | 62759 | N-Nitrosodimethylamine | 57 | %Rec | | |

Manchester Environmental Laboratory Report by Parameter for Project TEC-877A

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Project Code: Project Name: TEC-877A

FORMER NIKE LAUNCH SITE #81

Collected:

Matrix:

Liquid

Project Officer:

Station Description:

KEN MARCY

Sample Number:

06234051

Account Code:

06T10P302DD2C10ZZLA00

Type:

Matrix Spike Dupl

| | | | Result | Units | Qlfr | |
|----------------------------|-----------|--------------------------------------|--------|--------------------------|--------------------|--|
| GCMS | | | | | | |
| Parameter : Semi-volatiles | | es | | Container ID: 5N | | |
| Method : | 8270 | BNA | | Analysis Date: 6/14/2006 | | |
| Prep Method : | 3510 | Separatory funnel liq-liq extraction | | Pr | ep Date: 6/12/2006 | |
| Surrogate(s): | 95501 | Benzene, 1,2-dichloro- | 57 | %Rec | | |
| | *17829059 | D6-13C2 N-Nitrosodimethylamine | 58 | %Rec | | |
| | 62759 | N-Nitrosodimethylamine | 56 | %Rec | | |

Manchester Environmental Laboratory Report by Parameter for Project TEC-877A

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20

Project Code:

TEC-877A

Collected:

6/6/06

Project Name:

FORMER NIKE LAUNCH SITE #81

Matrix:

Liquid 06234052

Project Officer:

KEN MARCY 06T10P302DD2C10ZZLA00 Sample Number: Type:

Reg sample

Account Code: Station Description:

| | | | Result | Units | Qlfr | |
|---------------|----------------------------|--------------------------------------|--------|-------------------------|--------------------|--|
| GCMS | | | | | | |
| Parameter : | Parameter : Semi-volatiles | | | Container ID: 2N | | |
| Method : | 8270 | BNA | | Analysis Date: 6/13/200 | | |
| Prep Method : | 3510 | Separatory funnel liq-liq extraction | | Pr | ep Date: 6/12/2006 | |
| Analytes(s): | 62759 | N-Nitrosodimethylamine | 0.1 | ug/L | U | |
| Surrogate(s): | 95501 | Benzene, 1,2-dichloro- | 58 | %Rec | | |
| | *17829059 | D6-13C2 N-Nitrosodimethylamine | 55 - | %Rec | | |

Manchester Environmental Laboratory Report by Parameter for Project TEC-877A

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20

Project Code: Project Name: TEC-877A

FORMER NIKE LAUNCH SITE #81

Collected: Matrix:

6/6/06

Project Officer:

KEN MARCY

Sample Number:

Liquid 06234053

Account Code:

06T10P302DD2C10ZZLA00

Type:

Reg sample

Station Description:

PD01SW

| | | | Result | Units | Qlfr | |
|----------------------------|-----------|--------------------------------------|------------------|-------------------------|--------------------|--|
| GCMS | | · | | | | |
| Parameter : Semi-volatiles | | | Container ID: 1N | | | |
| Method : | 8270 | BNA | | Analysis Date: 6/13/200 | | |
| Prep Method : | 3510 | Separatory funnel liq-liq extraction | | Pr | ep Date: 6/12/2006 | |
| Analytes(s): | 62759 | N-Nitrosodimethylamine | 0.1 | ug/L | U | |
| Surrogate(s): | | Benzene, 1,2-dichloro- | 62 | %Rec | | |
| 2 , , | *17829059 | D6-13C2 N-Nitrosodimethylamine | 59 | %Rec | | |

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20

Project Code: Project Name: TEC-877A

FORMER NIKE LAUNCH SITE #81

Collected: Matrix:

6/6/06 Liquid

Project Officer:

KEN MARCY

Sample Number:

06234055

Account Code:

06T10P302DD2C10ZZLA00

Type:

Reg sample

Station Description:

PD02SW

| | · · · · · · | | Result | Units | Olfr | |
|----------------------------|-------------|--------------------------------------|------------------|------------------------|-------------------|--|
| GCMS | | | | | | |
| Parameter : Semi-volatiles | | | Container ID: 1N | | | |
| Method : | 8270 | BNA | | Analysis Date: 6/13/20 | | |
| Prep Method : | 3510 | Separatory funnel liq-liq extraction | | . Pr | ep Date: 6/12/200 | |
| Analytes(s): | 62759 | N-Nitrosodimethylamine | 0.1 | ug/L | U | |
| Surrogate(s): | 95501 | Benzene, 1,2-dichloro- | 58 | %Rec | | |
| | *17829059 | D6-13C2 N-Nitrosodimethylamine | 56 | %Rec | | |

Manchester Environmental Laboratory Report by Parameter for Project TEC-877A

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Project Code: Project Name:

TEC-877A

FORMER NIKE LAUNCH SITE #81

Collected: Matrix:

6/6/06

Project Officer:

KEN MARCY

Sample Number:

Liquid 06234057

Account Code:

06T10P302DD2C10ZZLA00

Type:

Reg sample

Station Description:

CR01SW

| | | | Result | Units | Qlfr | |
|---------------|----------------------------|--------------------------------------|--------|--------------------------|------|--|
| GCMS | | | | | | |
| Parameter : | Parameter : Semi-volatiles | | | Container ID: 3N | | |
| Method | 8270 | BNA | | Analysis Date: 6/13/2006 | | |
| Prep Method | 3510 | Separatory funnel liq-liq extraction | | Prep Date: 6/12/200 | | |
| Analytes(s) | 62759 | N-Nitrosodimethylamine | 0.1 | ug/L | U | |
| Surrogate(s): | 95501 | Benzene, 1,2-dichloro- | 57 | %Rec | | |
| | *17829059 | D6-13C2 N-Nitrosodimethylamine | 57 | %Rec | | |

Manchester Environmental Laboratory Report by Parameter for Project TEC-877A

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Project Code:

TEC-877A

Project Name:

FORMER NIKE LAUNCH SITE #81

Project Officer:

KEN MARCY

Account Code: Station Description:

06T10P302DD2C10ZZLA00

Collected:

6/6/06

Matrix:

Liquid

Sample Number:

06234061

Type:

Reg sample

| | | | Result | Units | Qlfr |
|---------------|--------------|--------------------------------------|--------|--------|--------------------|
| GCMS | | | | | |
| Parameter : | Semi-volatil | es | | Conta | iner ID: 1N |
| Method | : 8270 | BNA | | Analys | sis Date: 6/13/200 |
| Prep Method | : 3510 | Separatory funnel liq-liq extraction | | Pro | ep Date: 6/12/200 |
| Analytes(s) | : 62759 | N-Nitrosodimethylamine | 0.1 | ug/L | U |
| Surrogate(s): | : 95501 | Benzene, 1,2-dichloro- | 59 | %Rec | |
| | *17829059 | D6-13C2 N-Nitrosodimethylamine | 60 | %Rec | |

Manchester Environmental Laboratory Report by Parameter for Project TEC-877A

Page 10 of 20

Project Code: Project Name: TEC-877A

FORMER NIKE LAUNCH SITE #81

Collected: Matrix:

6/6/06

Project Officer:

KEN MARCY

Sample Number:

Liquid 06234062

Account Code:

06T10P302DD2C10ZZLA00

Type:

Reg sample

| | | | Result | Units | Qlfr |
|---------------|--------------|--------------------------------------|--------|--------|---------------------|
| GCMS | | | • | | |
| Parameter : | Semi-volatil | es . | | Conta | iner ID: 1N |
| Method ·: | 8270 | BNA | | Analys | sis Date: 6/13/2006 |
| Prep Method : | 3510 | Separatory funnel liq-liq extraction | | Pr | ep Date: 6/12/2006 |
| Analytes(s): | 62759 | N-Nitrosodimethylamine | 0.1 | ug/L | U |
| Surrogate(s): | 95501 | Benzene, 1,2-dichloro- | 52 | %Rec | |
| | *17829059 | D6-13C2 N-Nitrosodimethylamine | 62 | %Rec | |

Manchester Environmental Laboratory Report by Parameter for Project TEC-877A

Page 11 of 20

Project Code:

TEC-877A

Collected:

6/6/06

Project Name:

FORMER NIKE LAUNCH SITE #81

Matrix:

Liquid 06234063

Project Officer: Account Code:

KEN MARCY 06T10P302DD2C10ZZLA00 Sample Number: Type:

Reg sample

| | <u> </u> | | Result | Units | Qlfr | |
|---------------|---------------|--------------------------------------|--------|-------------------------|--------------------|--|
| GCMS | | | | | | |
| Parameter : | Semi-volatile | es | | Conta | iner ID: 1N | |
| Method : | 8270 | BNA | | Analysis Date: 6/13/200 | | |
| Prep Method : | 3510 | Separatory funnel liq-liq extraction | | Pr | ep Date: 6/12/2006 | |
| Analytes(s): | 62759 | N-Nitrosodimethylamine | 0.1 | ug/L | U | |
| Surrogate(s): | 95501 | Benzene, 1,2-dichloro- | 50 | %Rec | • | |
| - | *17829059 | D6-13C2 N-Nitrosodimethylamine | 53 | %Rec | | |

Report by Parameter for Project TEC-877A

Project Code:

TEC-877A

Collected:

6/6/06

Project Name:

FORMER NIKE LAUNCH SITE #81

Matrix: Sample Number: Liquid 06234064

Project Officer: Account Code:

KEN MARCY

06T10P302DD2C10ZZLA00

Type:

Reg sample

| | | | Result | Units | Qlfr |
|---------------|---------------|--------------------------------------|--------|-------|---------------------|
| GCMS | | | | | |
| Parameter | Semi-volatile | es | | Conta | niner ID: 2N |
| Method | : 8270 | BNA | | Analy | sis Date: 6/13/2006 |
| Prep Method | : 3510 | Separatory funnel liq-liq extraction | | Pr | ep Date: 6/12/2006 |
| Analytes(s) | : 62759 | N-Nitrosodimethylamine | 0.1 | ug/L | U |
| Surrogate(s): | : 95501 | Benzene, 1,2-dichloro- | 50 | %Rec | |
| | *17829059 | D6-13C2 N-Nitrosodimethylamine | 59 | %Rec | • |

Manchester Environmental Laboratory Report by Parameter for Project TEC-877A

Page 13 of 20

Project Code:

TEC-877A

Project Name:

FORMER NIKE LAUNCH SITE #81

KEN MARCY

Project Officer:
Account Code:

06T10P302DD2C10ZZLA00

Collected:

ea:

Liquid

6/6/06

Matrix: Sample Number:

06234065

Type:

Reg sample

| | | | Result | Units | Qlfr | |
|---------------|---------------|--------------------------------------|--------|--------------------------|--------------------|--|
| GCMS | | | | | | |
| Parameter : | Semi-volatile | es | | Conta | niner ID: 2N | |
| Method : | 8270 | BNA | | Analysis Date: 6/13/2006 | | |
| Prep Method : | 3510 | Separatory funnel liq-liq extraction | | Pr | ep Date: 6/12/2006 | |
| Analytes(s): | 62759 | N-Nitrosodimethylamine | 0.1 | ug/L | U | |
| Surrogate(s): | 95501 | Benzene, 1,2-dichloro- | 56 | %Rec | | |
| _ | *17829059 | D6-13C2 N-Nitrosodimethylamine | 57 | %Rec | | |

Manchester Environmental Laboratory Report by Parameter for Project TEC-877A

Page 14 of 20

Project Code:

TEC-877A

Collected:

6/6/06

Project Name:

FORMER NIKE LAUNCH SITE #81 KEN MARCY Matrix:

Liquid 06234066

Project Officer: Account Code:

06T10P302DD2C10ZZLA00

Sample Number: Type:

Reg sample

| | | | Result | Units | Qlfr |
|---------------|---------------|--------------------------------------|--------|-------------|---------------------|
| GCMS | | | | | |
| Parameter : | Semi-volatile | es | | Conta | ainer ID: 2N |
| Method : | 8270 | BNA | | Analy | sis Date: 6/13/2006 |
| Prep Method : | 3510 | Separatory funnel liq-liq extraction | | . Pr | rep Date: 6/12/2006 |
| Analytes(s): | 62759 | N-Nitrosodimethylamine | 0.1 | ug/L | U |
| Surrogate(s): | 95501 | Benzene, 1,2-dichloro- | 55 | %Rec | |
| - | *17829059 | D6-13C2 N-Nitrosodimethylamine | 59 | %Rec | |

Manchester Environmental Laboratory Report by Parameter for Project TEC-877A

Page 15 of 20

Project Code: Project Name:

TEC-877A

FORMER NIKE LAUNCH SITE #81

Collected:

Matrix:

Liquid

Project Officer:

KEN MARCY

Sample Number:

OBF6163F1

Account Code:

06T10P302DD2C10ZZLA00

Type:

LCS

| | | | Result | Units | Olfr |
|---------------|---------------|--------------------------------------|--------|--------|---------------------|
| GCMS | | | | | |
| Parameter : | Semi-volatile | es | | Conta | iner ID: 0 |
| Method : | 8270 | BNA | | Analys | sis Date: 6/13/2006 |
| Prep Method : | 3510 | Separatory funnel liq-liq extraction | | Pr | ep Date: 6/12/2006 |
| Surrogate(s): | 95501 | Benzene, 1,2-dichloro- | .49 | %Rec | |
| | *17829059 | D6-13C2 N-Nitrosodimethylamine | 56 | %Rec | |
| • . | 62759 | N-Nitrosodimethylamine | 53 | %Rec | |

Manchester Environmental Laboratory Report by Parameter for Project TEC-877A

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20

Project Code: Project Name:

TEC-877A

FORMER NIKE LAUNCH SITE #81

Collected:

Matrix:

Liquid

Project Officer: KEN MARCY

Sample Number:

OBF6163F2

Account Code:

06T10P302DD2C10ZZLA00

Type:

LCSD

| | | | · · · · · · · · · · · · · · · · · · · | Result | Units | <u> Qlfr</u> |
|--------------|---|----------------|---------------------------------------|--------|--------|---------------------|
| GCMS | | | | | | |
| Parameter : | | Semi-volatiles | \$ | | Conta | niner ID: 0 |
| Method | : | 8270 | BNA | | Analys | sis Date: 6/13/2006 |
| Prep Method | : | 3510 | Separatory funnel liq-liq extraction | | Pr | ep Date: 6/12/2006 |
| Surrogate(s) | : | 95501 | Benzene, 1,2-dichloro- | 48 | %Rec | |
| , | | *17829059 | D6-13C2 N-Nitrosodimethylamine | 57 | %Rec | |
| | | 62759 | N-Nitrosodimethylamine | 55 | %Rec | |

Manchester Environmental Laboratory Report by Parameter for Project TEC-877A

Page 17 of 20

Project Code:

TEC-877A

FORMER NIKE LAUNCH SITE #81

Collected: Matrix:

Liquid

Project Name: Project Officer:

KEN MARCY

Sample Number:

OBF6163F3

Account Code:

06T10P302DD2C10ZZLA00

Type:

LCS

| | | | Result | Units | Olfr |
|---------------|---------------|--------------------------------------|--------|--------|---------------------|
| GCMS | • | | | | |
| Parameter : | Semi-volatile | es | | Conta | iner ID: 0 |
| Method : | 8270 | BNA | | Analys | sis Date: 6/13/2006 |
| Prep Method : | 3510 | Separatory funnel liq-liq extraction | | Pre | ep Date: 6/12/2006 |
| Surrogate(s): | 95501 | Benzene, 1,2-dichloro- | 44 | %Rec | |
| | *17829059 | D6-13C2 N-Nitrosodimethylamine | 51 | %Rec | |
| | 62759 | N-Nitrosodimethylamine | 55 | %Rec | |

Manchester Environmental Laboratory Report by Parameter for Project TEC-877A

Page 18 of 20

Project Code:

TEC-877A

FORMER NIKE LAUNCH SITE #81

Collected: Matrix:

Liquid

Project Name: Project Officer:

KEN MARCY

Sample Number:

OBF6163F4

Account Code:

06T10P302DD2C10ZZLA00

Type:

LCSD

| | | | Result | Units | Qlfr |
|--------------|-------------|--------------------------------------|--------|-------|---------------------|
| GCMS | | | | | |
| Parameter : | Semi-volati | les | | Cont | ainer ID: 0 |
| Method | : 8270 | BNA | | Analy | sis Date: 6/13/2006 |
| Prep Method | : 3510 | Separatory funnel liq-liq extraction | | Pr | rep Date: 6/12/2006 |
| Surrogate(s) | 95501 | Benzene, 1,2-dichloro- | 39 | %Rec | |
| | *17829059 | D6-13C2 N-Nitrosodimethylamine | 42 | %Rec | |
| | 62759 | N-Nitrosodimethylamine | 46 | %Rec | |

Manchester Environmental Laboratory Report by Parameter for Project TEC-877A

20 Page 19 of

Project Code: Project Name: **TEC-877A**

FORMER NIKE LAUNCH SITE #81

Collected:

Matrix:

Liquid

Project Officer: KEN MARCY

Sample Number:

OBW6163B1

Account Code: **Station Description:** 06T10P302DD2C10ZZLA00

Type:

Blank

| | | | Result | Units | Qlfr | |
|---------------|----------------|--------------------------------------|--------|--------------------------|--------------------|--|
| GCMS | | | | | | |
| Parameter : | Semi-volatiles | 3 . | | Conta | niner ID: 0 | |
| Method : | 8270 | BNA | | Analysis Date: 6/13/2006 | | |
| Prep Method : | 3510 | Separatory funnel liq-liq extraction | | Pr | ep Date: 6/12/2006 | |
| Analytes(s): | 62759 | N-Nitrosodimethylamine | 0.1 | ug/L | U . | |
| Surrogate(s): | 95501 | Benzene, 1,2-dichloro- | 52 | %Rec | | |
| | *17829059 | D6-13C2 N-Nitrosodimethylamine | 58 | %Rec | | |

Manchester Environmental Laboratory Report by Parameter for Project TEC-877A

Page 20 of 20

Project Code: Project Name: **TEC-877A**

FORMER NIKE LAUNCH SITE #81

Collected: Matrix:

Liquid

Project Officer: **Account Code:**

KEN MARCY 06T10P302DD2C10ZZLA00 Sample Number: Type:

OBW6163B2 Blank

| | | | Result | Units | Olfr |
|---------------|---------------|--------------------------------------|--------|--------|---------------------|
| GCMS | | | | | |
| Parameter : | Semi-volatile | es | | Conta | niner ID: 0 |
| Method : | 8270 | BNA | | Analys | sis Date: 6/13/2006 |
| Prep Method : | 3510 | Separatory funnel liq-liq extraction | | Pr | ep Date: 6/12/2006 |
| Analytes(s): | 62759 | N-Nitrosodimethylamine | 0.1 | ug/L | U |
| Surrogate(s): | 95501 | Benzene, 1,2-dichloro- | 50 | %Rec | |
| | *17829059 | D6-13C2 N-Nitrosodimethylamine | 52 | %Rec | |



720 Third Avenue, Suite 1700, Seattle, WA 98104 Tel: (206) 624-9537, Fax: (206) 621-9832

MEMORANDUM

DATE:

August 30, 2006

FROM:

Mark Woodke, START-3 Chemist, E & E, Seattle, Washington

SUBJ:

Organic Data Summary Check, Former Nike Launch Site #81,

Poulsbo, Washington-

REF:

TDD: 06-01-0035

PAN: 002233.0051.01SR

The data summary check of 2 sediment samples collected from the Former Nike Launch Site #81 in Poulsbo, Washington, has been completed. N-nitrosodimethylamine (NDMA) analyses were performed by the Manchester Environmental Laboratory (MEL), Port Orchard, Washington.

The samples were numbered:

06234054

06234056

No discrepancies were noted.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION 10 LABORATORY

7411 Beach Dr. East Port Orchard, Washington 98366

MEMORANDUM

SUBJECT:

Data Release for N-nitrosodimethylamine Results from the USEPA

Region 10 Laboratory

PROJECT NAME:

Former Nike Launch Site #81, Poulsbo, WA

PROJECT CODE:

TEC-877A

FROM:

Gerald Dodo, Supervisory Chemist

Laboratory Unit, Office of Environmental Assessment, USEPA Region 10

TO:

Ken Marcy, RPM

Site Cleanup Unit 2, Office of Environmental Cleanup, USEPA Region 10

CC:

Mark Woodke, Ecology & Environment, Inc.

I have authorized release of this data package. Attached you will find the N-nitrosodimethylamine results for the Former Nike Launch Site #81, Poulsbo, WA project for the soil samples collected 06/06/06. For further information regarding the attached data, contact Chris Pace at 360-871-8703. For the schedule for the remaining analyses, contact Gerald Dodo at 360-871-8728.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION 10 LABORATORY

7411 Beach Dr. East Port Orchard, Washington 98366

July 26, 2006

MEMORANDUM

SUBJECT: Data Review for the N-nitrosodimethylamine Analysis of Samples from the

Former Nike Launch Site #81, Poulsbo, WA

Project Code: TEC-877A

Account Code: 06T10P302DD2C10ZZLA00

FROM:

Chris Pace, Chemist

Laboratory Unit, Office of Environmental Assessment, USEPA Region 10

TO:

Ken Marcy, RPM

Site Cleanup Unit 2, Office of Environmental Cleanup, USEPA Region 10

CC:

Mark Woodke, Ecology & Environment, Inc.

The data review of the N-nitrosodimethylamine analysis results for water samples collected from the above referenced site has been completed. The samples were analyzed by the USEPA Region 10 Laboratory staff located in Manchester, WA using modifications to EPA methods 3541 and 8270C.

The data for the following sample numbers are reviewed in this report.

06234054

06234056

DATA QUALIFICATIONS

The following comments refer to laboratory performance in meeting the quality control specifications outlined in the analytical method, the project quality assurance plan, the Manchester Laboratory Quality Assurance Manual, standard operating procedures, and professional judgment.

For those tests for which the USEPA Region 10 Laboratory has been NELAC accredited, all requirements of the current NELAC Standard have been met.

The conclusions presented herein are based on the information provided for the review.

Holding Time - Acceptable

The samples were extracted within the 14-day holding time for soil samples and analyzed within the 40-day holding time for the prepared extract.

GC/MS Tuning and Performance - Acceptable

The tuning summary agreed with the raw data. All decafluorotriphenylphosphine ion abundance ratios met criteria. Sample analyses were preceded by a tune less than 12 hours prior to analysis.

Initial Calibration - Acceptable

Initial calibration was performed on 06/19/06 for the target and surrogate compounds. Average relative response factors (RRFs) met the criteria of ≥ 0.05 . Percent relative standard deviations (%RSDs) of the RRFs met the criteria of $\le 30\%$.

Continuing Calibration - Acceptable

The continuing calibration check for met the criteria for frequency of analysis and relative retention time (RRT) windows for all target and surrogate compounds. The RRFs were ≥ 0.05 and the percent accuracies were 80-120% of the true values.

Blanks - Acceptable

A method blank is prepared and analyzed with each sample extraction batch to evaluate the potential for laboratory contamination and effects on the sample results. N-nitrosodimethylamine was not detected in the blank.

Surrogates

Surrogate recoveries are used to help in the evaluation of laboratory performance on individual samples. The surrogate recoveries met the criteria of 60-140% except for the following.

Samples 06234056 and 06234056S2 resulted with >140% recovery for penol-d5. The remaining three surrogates had acceptable recoveries. None of the sample data were qualified on this basis alone.

Sample 06234056S1 resulted with <60% recovery for 1,2-dichlorobenze-d4. The remaining three surrogates had acceptable recoveries. None of the sample data were qualified on this basis alone.

Matrix Spike/Matrix Spike Duplicate (MS/MSD)

MS/MSD analyses are performed to provide information on the effects of sample matrices toward the analytical method. MS/MSD analyses were performed using samples 06234056

(S1/S2). The recoveries met the criteria of 60-140% with a relative percent difference (RPD) of \leq 35% except for the following.

Sample 06234056S2 resulted with <60% recovery for N-nitrosodimethylamine. The RPD between 06234056S1/S2 was >35. The non-detected results in the native sample were qualified 'UJ'.

Laboratory Control Samples - Acceptable

Data for laboratory control samples (LCS) are generated to provide information on the accuracy of the analytical method and the laboratory performance. The LCS recoveries met the criteria of 60-140% with a relative percent difference (RPD) of ≤ 35 .

Internal Standard Performance

Internal standards performance criteria ensure that GC/MS sensitivity and response are stable during every analytical run. The retention time variations of all internal standards were within 30 seconds of the continuing calibration standard. The percent areas of all the internal standards were within the specified 50% to 200% of the continuing calibration standard for all reported results except for the following.

Samples 06234056 and 06234056S2 resulted with <50% percent area for 1,4-dichlorobenzene. The non-detected results in the native sample were qualified 'UJ'.

Target Compound Identification

N-nitrosodimethylamine was not detected in the samples.

Compound Quantitation - Acceptable

The initial calibration functions were used for calculations. Reported quantitation limits were based on the initial calibration standards and sample size used for the analysis. Manual integrations were reviewed and judged acceptable.

Overall Assessment

All requirements for data qualifiers from the preceding sections were accumulated. Each sample data summary sheet and each compound was checked for positive or negative results. From this, the overall need for data qualifiers for each analysis was determined. In cases where more than one of the preceding sections required data qualifiers, the most restrictive qualifier has been added to the data.

In general, all unqualified data can be used without restriction. The usefulness of qualified data should be treated according to the severity of the qualifier. Should questions arise regarding the qualification of data and its relation to the usefulness, the reader is encouraged to contact Chris Pace at the Region 10 Laboratory, phone number (360)871-8703.

| Qualifier/ Remark Code | Definition (Codes Assigned to Values) | | | |
|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|
| U | The analyte was not detected at or above the reported value. | | | |
| J | The identification of the analyte is acceptable; the reported value is an estimate. | | | |
| UJ | The analyte was not detected at or above the reported value. The reported value is an estimate. | | | |
| R | The presence or absence of the analyte can not be determined from the data due to severe quality control problems. The data are rejected and considered unusable. <u>No value is reported with this qualification</u> . | | | |
| NJ | There is presumptive evidence that the analyte is present; the analyte is reported as a tentative identification. The reported value is an estimate. | | | |
| NA | Not Applicable, the parameter was not analyzed for, or there is no analytical result for this parameter. No value is reported with this qualification. | | | |

7/28/06

Manchester Environmental Laboratory Report by Parameter for Project TEC-877A

Page 1 of

Project Code: Project Name: TEC-877A

FORMER NIKE LAUNCH SITE #81

06T10P302DD2C10ZZLA00

Collected:

6/6/06

Project Officer:

Matrix:

Solid 06234054

Account Code:

KEN MARCY

Sample Number: Type:

Reg sample

Station Description:

PD01SD

| | | | Result | Units | Qlfr | |
|---------------|----------------|------------------------|--------|--------------------------|--------------------|--|
| GCMS | | | | | | |
| Parameter : | Semi-volatiles | S | | Container ID: N2 | | |
| Method : | 8270C-MO | Semivolatiles by GCMS | | Analysis Date: 6/26/2006 | | |
| Prep Method : | 3541 | | | Pr | ep Date: 6/13/2006 | |
| Analytes(s): | 62759 | N-Nitrosodimethylamine | 37 | ug/Kg | U | |
| Surrogate(s): | 2199691 | 1,2-Dichlorobenzene-d4 | 60 | %Rec | | |
| | 93951736 | 2-chlorophenol-d4 | 68 | %Rec | | |
| | 367124 | Phenol, 2-fluoro- | 77 | %Rec | • | |
| | 4165622 | Phenol-d5 | 74 | %Rec | | |

Manchester Environmental Laboratory Report by Parameter for Project TEC-877A

Page 2 of

Project Code:

TEC-877A

Collected:

6/6/06

Project Name:

FORMER NIKE LAUNCH SITE #81

Matrix:

Solid

Project Officer:

KEN MARCY

Sample Number:

06234056

Account Code:

06T10P302DD2C10ZZLA00

Type:

Reg sample

Station Description:

PD02SD

| | | | Result | Units | Qlfr |
|---------------|---------------|------------------------|--------|-------|---------------------|
| GCMS | | | | | |
| Parameter : | Semi-volatile | es | | Conta | iner ID: N1 |
| Method : | 8270C-MO | Semivolatiles by GCMS | | Analy | sis Date: 6/26/2006 |
| Prep Method : | 3541 | | • | Pr | ep Date: 6/13/2006 |
| Analytes(s): | 62759 | N-Nitrosodimethylamine | 41 | ug/Kg | UJ |
| Surrogate(s): | 2199691 | 1,2-Dichlorobenzene-d4 | 67 | %Rec | |
| | 93951736 | 2-chlorophenol-d4 | 84 | %Rec | |
| | 367124 | Phenol, 2-fluoro- | 60 | %Rec | |
| | 4165622 | Phenol-d5 | 161 | %Rec | |

Manchester Environmental Laboratory Report by Parameter for Project TEC-877A

Page 3 of

Project Code:

TEC-877A

Collected:

6/6/06

Project Name:

FORMER NIKE LAUNCH SITE #81

Matrix:

Solid

Project Officer:

KEN MARCY

Sample Number:

06234056

Account Code:

Station Description:

06T10P302DD2C10ZZLA00

Type:

Matrix Spike

| | | | Result | Units | Olfr |
|---------------|---------------|------------------------|--------|--------|--------------------|
| GCMS | | | | | |
| Parameter : | Semi-volatile | es | | Conta | iner ID: N1 |
| Method : | 8270C-MO | Semivolatiles by GCMS | | Analys | is Date: 6/26/2006 |
| Prep Method : | 3541 | | | Pr | ep Date: 6/13/2006 |
| Surrogate(s): | 2199691 | 1,2-Dichlorobenzene-d4 | 52 | %Rec | |
| | 93951736 | 2-chlorophenol-d4 | 80 | %Rec | |
| | 62759 . | N-Nitrosodimethylamine | 83 | %Rec | |
| | 367124 | Phenol, 2-fluoro- | 82 | %Rec | |
| | 4165622 | Phenol-d5 | 90 . | %Rec | |

Manchester Environmental Laboratory Report by Parameter for Project TEC-877A

Page 4 of

Project Code:

TEC-877A

Collected:

6/6/06

Project Name:

FORMER NIKE LAUNCH SITE #81

Matrix:

Solid

Project Officer:

KEN MARCY

Sample Number:

06234056

Account Code:

06T10P302DD2C10ZZLA00

Type:

Matrix Spike Dupl

Station Description:

| · | | | Result | Units | Qlfr |
|-----------------------------------------|---------------|------------------------|--------|--------|--------------------|
| GCMS | | | | | |
| Parameter : | Semi-volatile | es | | Conta | iner ID: N1 |
| Method : | 8270C-MO | Semivolatiles by GCMS | | Analys | is Date: 6/26/2006 |
| Prep Method : | 3541 | | | Pre | ep Date: 6/13/2006 |
| Surrogate(s): | 2199691 | 1,2-Dichlorobenzene-d4 | . 66 | %Rec | |
| • • • • • • • • • • • • • • • • • • • • | 93951736 | 2-chlorophenol-d4 | 117 | %Rec | |
| | 62759 | N-Nitrosodimethylamine | 46 | %Rec | |
| | 367124 | Phenol, 2-fluoro- | 101 | %Rec | |
| | 4165622 | Phenol-d5 | 174 | %Rec | |

Manchester Environmental Laboratory Report by Parameter for Project TEC-877A

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Project Code: Project Name: TEC-877A

367124

4165622

KEN MARCY

FORMER NIKE LAUNCH SITE #81

Phenol, 2-fluoro-

Phenol-d5

06T10P302DD2C10ZZLA00

Collected: Matrix:

88

107

Solid

%Rec

%Rec

Sample Number: Type:

BF6164B1 LCS

Account Code: Station Description:

Project Officer:

Units Result Qlfr **GCMS** Parameter Container ID: 0 Semi-volatiles : 8270C-MO Semivolatiles by GCMS Analysis Date: 6/26/2006 Method Prep Method: 3541 Prep Date: 6/13/2006 %Rec Surrogate(s): 2199691 1,2-Dichlorobenzene-d4 90 %Rec 2-chlorophenol-d4 89 93951736 62759 N-Nitrosodimethylamine 99 %Rec

Manchester Environmental Laboratory Report by Parameter for Project TEC-877A

Page

6 of

Project Code:

TEC-877A

Collected:

Project Name:

FORMER NIKE LAUNCH SITE #81

Matrix:

Solid

Project Officer:

KEN MARCY

Sample Number:

BF6164B2

Account Code:

06T10P302DD2C10ZZLA00

Type:

LCSD

Station Description:

| | | | Result | Units | Olfr |
|---------------|---------------|------------------------|--------|--------|---------------------|
| GCMS | | | | | |
| Parameter : | Semi-volatile | S | | Conta | niner ID: 0 |
| Method : | 8270C-MO | Semivolatiles by GCMS | , | Analys | sis Date: 6/26/2006 |
| Prep Method : | 3541 | | | Pr | ep Date: 6/13/2006 |
| Surrogate(s): | 2199691 | 1,2-Dichlorobenzene-d4 | 77 | %Rec | |
| • | 93951736 | 2-chlorophenol-d4 | 87 | %Rec | |
| | 62759 | N-Nitrosodimethylamine | 87 | %Rec | |
| | 367124 | Phenol, 2-fluoro- | 92 | %Rec | |
| | 4165622 | Phenol-d5 | 97 | %Rec | |

Manchester Environmental Laboratory Report by Parameter for Project TEC-877A

Page 7 of

of

Project Code: Project Name: **TEC-877A**

FORMER NIKE LAUNCH SITE #81

4Q.1

Collected: Matrix:

Solid

Project Officer:

KEN MARCY

Sample Number:

BS6164A1

Account Code:

06T10P302DD2C10ZZLA00

Type:

Blank

Station Description:

| | | | Resul | t Units | <u>Qlfr</u> |
|---------------|---------------|------------------------|-------|---------|-------------------------|
| GCMS | | | - | | w. |
| Parameter : | Semi-volatile | es | | C | Container ID: 0 |
| Method : | 8270C-MO | Semivolatiles by GCMS | | Ar | nalysis Date: 6/26/2006 |
| Prep Method : | 3541 | • | | | Prep Date: 6/13/2006 |
| Analytes(s): | 62759 | N-Nitrosodimethylamine | 31 | ug/Kg | U |
| Surrogate(s): | 2199691 | 1,2-Dichlorobenzene-d4 | 77 | %Rec | |
| | 93951736 | 2-chlorophenol-d4 | 63 | %Rec | • |
| | 367124 | Phenol, 2-fluoro- | 73 | %Rec | |
| | 4165622 | Phenol-d5 | 72 | %Rec | |

D GLOBAL POSITIONING SYSTEM DATA

Appendix D Global Positioning System Data

| Sample I ≥ocation | | Longitude (Degrees West) |
|--------------------------|----------|-----------------------------|
| Bus Barn Well | 47.75235 | 122.66496 |
| Westside Well | 47.77535 | 122.64849 |
| Monitoring Well | 47.75587 | 122.66116 |
| Pond 2 | 47.75514 | 122.66079 |
| Pond 1 | 47.76280 | 122.65485 |
| Johnson Creek | 47.75400 | 122.66364 |
| Accumar Corporation | 47.75404 | 122.66170 |
| (b) (6) | 47.75572 | 122.65227 |
| | 47.75133 | 122.66212 |
| | 47.75097 | 122.65955 |
| | 47.75060 | 122.66222 |
| | 47.73371 | 122.66119 |

APPENDIX A PHOTOGRAPHIC DOCUMENTATION

PHOTOGRAPH IDENTIFICATION SHEET

Camera Serial #: 645492

Lens Type: 35mm

TDD #: 96-11-0007

Site Name: Former NIKE Missile Launch Site

| Photo No. | Date | Time | Ву | Description |
|-----------|----------|------|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 . | 12/17/96 | 0900 | MM | Looking north at the area behind the former barracks (note the small orange wooden stake at right of photo where a subsurface background soil sample was collected). |
| 2 | 12/17/96 | 0915 | MM | Same area behind the former barracks (wooden stake at left identifies location of the requested Corps of Engineers subsurface sample where a heating oil UST once existed). |
| 3 | 12/17/96 | 0930 | MM | Closer view of the Corps of Engineers sample location (the small wooden stake identifies the actual sample location). |
| 4 | 12/17/96 | 1000 | MM | Photo of the former missile assembly building. |
| 5 | 12/17/96 | 1015 | ММ | View of the north side of the missile assembly building and location of sample location (see orange wooden stake at right). |
| 6 | 12/18/96 | 0815 | MM | Photo of widespread debris inside the former missile assembly building. |
| 7 | 12/18/96 | 0818 | MM | View of a room inside the missile assembly building with debris piled on floor (note drum that is labeled lead paint). |
| 8 | 12/18/96 | 0820 | ММ | Looking south from the west side of missile assembly building (maintenance shop is located behind trees at the right of photo). See sample location map for sample locations in this area. |
| 9 | 12/18/96 | 0822 | MM | View of maintenance shop located near the missile assembly building (site of several sample locations). |
| 10 _ | 12/18/96 | 0825 | ММ | View of two side by side borings that were often needed to produce enough soil to adequately fill sample jars (note the bentonite grout backfilled into all abandoned holes). |
| 11 | 12/18/96 | 0827 | ММ | Photo of geoprobe equipment used to collect all subsurface soil samples. |
| 12 | 12/18/96 | 0830 | MM | View of the former missile fueling station after being cleared by bulldozer to better allow geoprobe access. |
| 13 | 12/18/96 | 0832 | ММ | Another view of former missile fueling station area. |
| 14 | 12/18/96 | 0834 | ММ | View of the north side of the former missile fueling station and location of several boring locations (see stakes). |
| 15 | 12/18/96 | 0837 | ММ | View of more boring locations in the area of the missile fueling station. |
| 16 | 12/18/96 | 0840 | ММ | View of the area north of the missile silos prior being cleared for an EM-31 survey. |

PHOTOGRAPH IDENTIFICATION SHEET

Camera Serial #: 645492

TDD #: 96-11-0007 Lens Type: 35mm Site Name: Former NIKE Missile Launch Site

| Photo No. | Date | Time | Ву | Description |
|-----------|----------|------|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 17 | 12/18/96 | 0841 | MM | Area south of the missile silos being cleared by a bulldozer prior to the EM-31 survey. |
| 18 | 12/18/96 | 0843 | MM | View of cleared area south of missile silos where EM-31 survey took place. |
| 19 | 12/18/96 | 0845 | MM | Cleared area south of the missile silos and site of EM-31 survey. |
| ·20 | 12/18/96 | 0847 | MM | Geoprobe operations taking place in the area of EM-31 survey. |
| 21 | 12/18/96 | 0850 | ММ | Closer view of samples being collected from geoprobe in area of the EM-31 (heavy brush existed in this area before it was bulldozed). |
| 22 | 12/18/96 | 0852 | ММ | Former transformer storage area located near the generator building (site of 3 borings adjacent to concrete pad). |
| 23 | 12/18/96 | 0855 | ММ | View of southwest side of transformer pad area and site of a geoprobe boring (note small orange stake). |
| 24 | 12/18/96 | 0857 | MM | South side of transformer pad after being cleared by bulldozer. |
| 25 | 12/18/96 | 0900 | MM | Southeast side of transformer pad and site of two geoprobe borings. |
| 26 | 12/18/96 | 0910 | MM | View of the on-site well house located on the west side of the main access road. |
| 27 - | 12/18/96 | 0915 | MM | Close-up view of the water well inside the well house prior to sampling activities. |
| 28 | 1/14/97 | 0825 | ММ | View of the on-site well casing being removed from the well (a trap door was opened on the roof of the well house to allow for removal). |
| 29 | 1/14/97 | 0850 | MM | Another view of the water well casing being removed from the well. |
| 30 | 1/14/97 | 0910 | MM | A Grundfos pump was used to purge the on-site well after the well casing was removed entirely from the well (sampling was performed after the well was properly purged). |
| 31 | 1/14/97 | 0930 | MM | A view of the well casing removed from the on-site well and placed near the well house (117 feet of casing was pulled from the well). |

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PHOTOGRAPH IDENTIFICATION SHEET

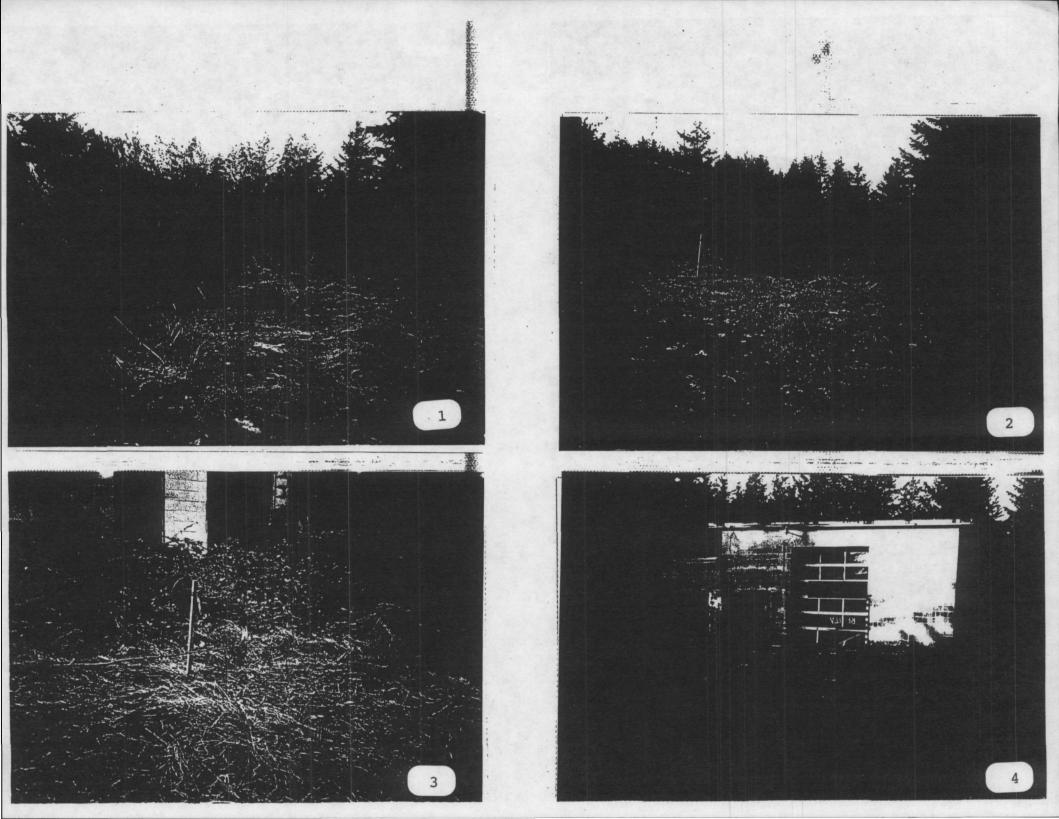
Camera Serial #: 645492

TDD #: 96-11-0007 Site Name: Former NIKE Missile Launch Site

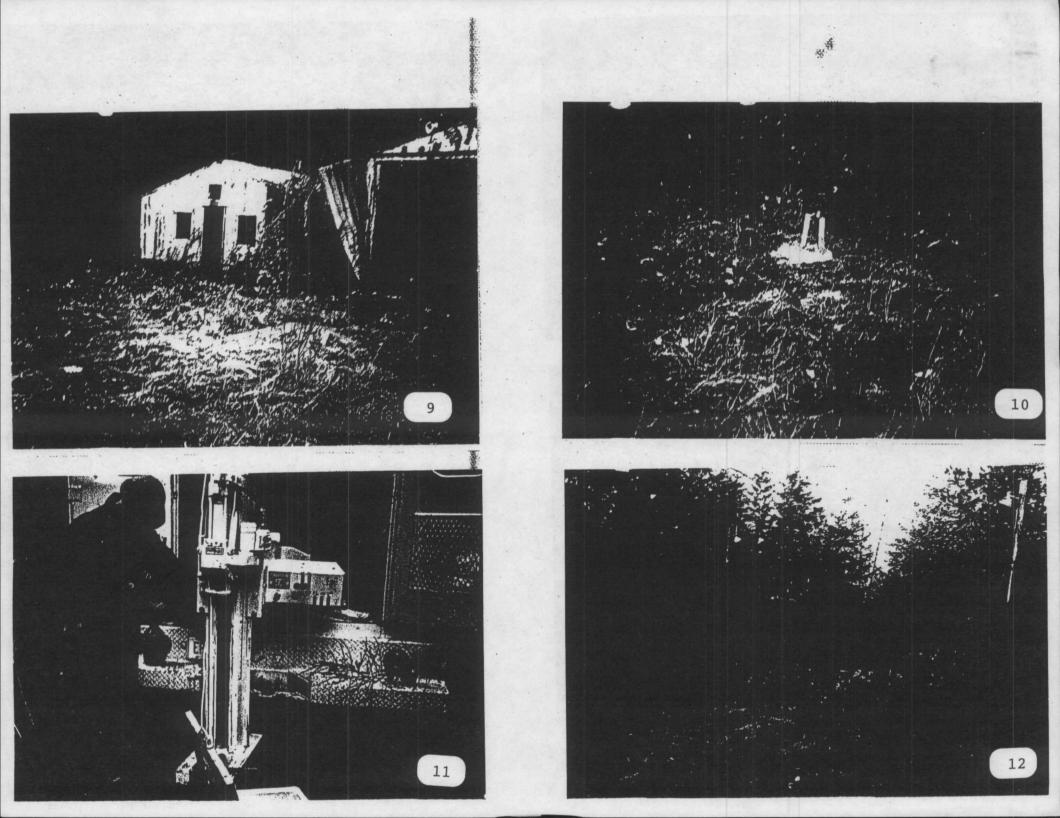
Lens Type: 35mm

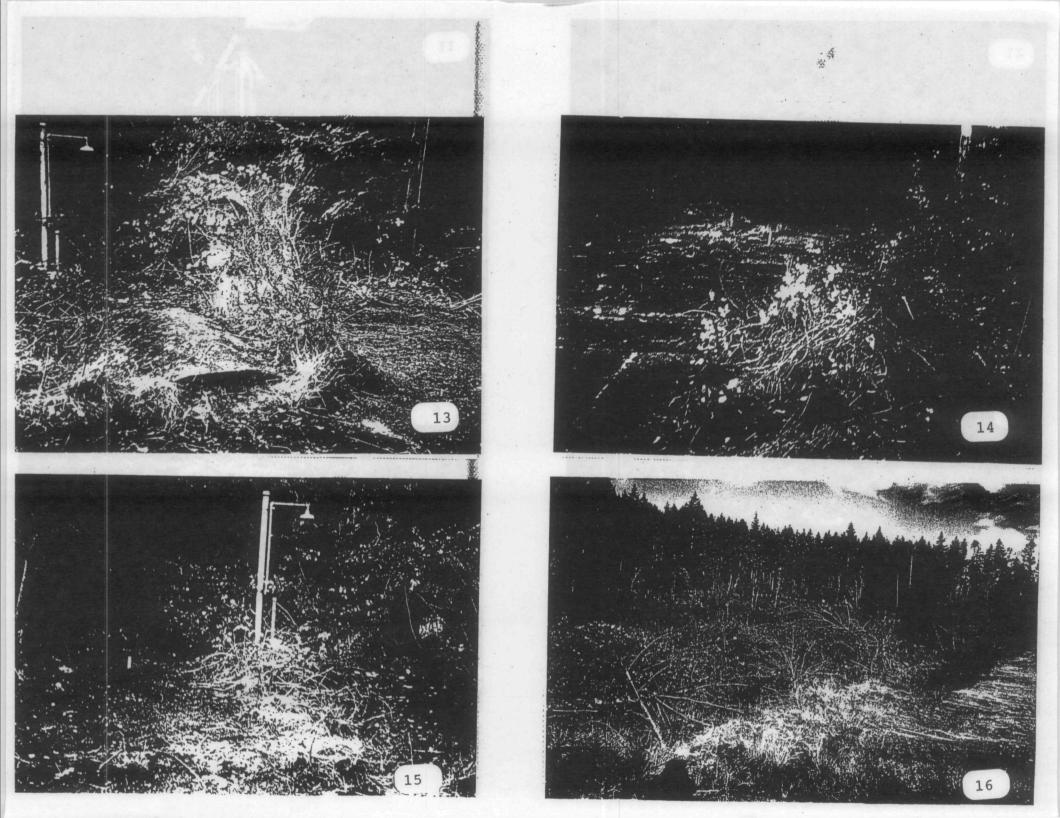
| Photo No. | Date | Time | Ву | Description |
|-----------|----------|------|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 32 | 1/14/97 | 1350 | ММ | A view of the well following sampling activities. A locked steel well cap was placed on the well to prevent access (keys were left with property owner representatives). |
| 33 | 1/14/97 | 0950 | ММ | A photo of the chain-linked fence that was pulled from its hinges (possibly tampered with) prior to START's arrival for sampling the on-site well. |
| 34 | 12/18/96 | 0920 | MM | Site of the upgradient (b) (6) collected from (b) (6) |
| 35 | 12/18/96 | 0930 | MM | Site of a downgradient domestic water well sample at the Accumar corporation (DW-2) located near NIKE site (1180 NW Finn Hill Road). |
| 36 | 12/18/96 | 0940 | MM | Site of domestic water well sample DW-3 located at the (b) (6) on Finn Hill Road northwest of the access road. |
| 37 | 12/18/96 | 0950 | MM | Site of a downgradient water well sample (DW-4) collected from the (b) (6) |
| 38 | 12/18/96 | 1000 | ММ | Site of domestic water well sample DW-5 at the (b) (6) (b) (6) |
| 39 | 12/18/96 | 1015 | ММ | Site of downgradient water well sample DW-6 located behind the City of Poulsbo Bus barn directly south of the NIKE site. |
| 40 | 12/18/96 | 1030 | MM | Bus barn water sample taken from outflow from water tank shown at right of photo. |

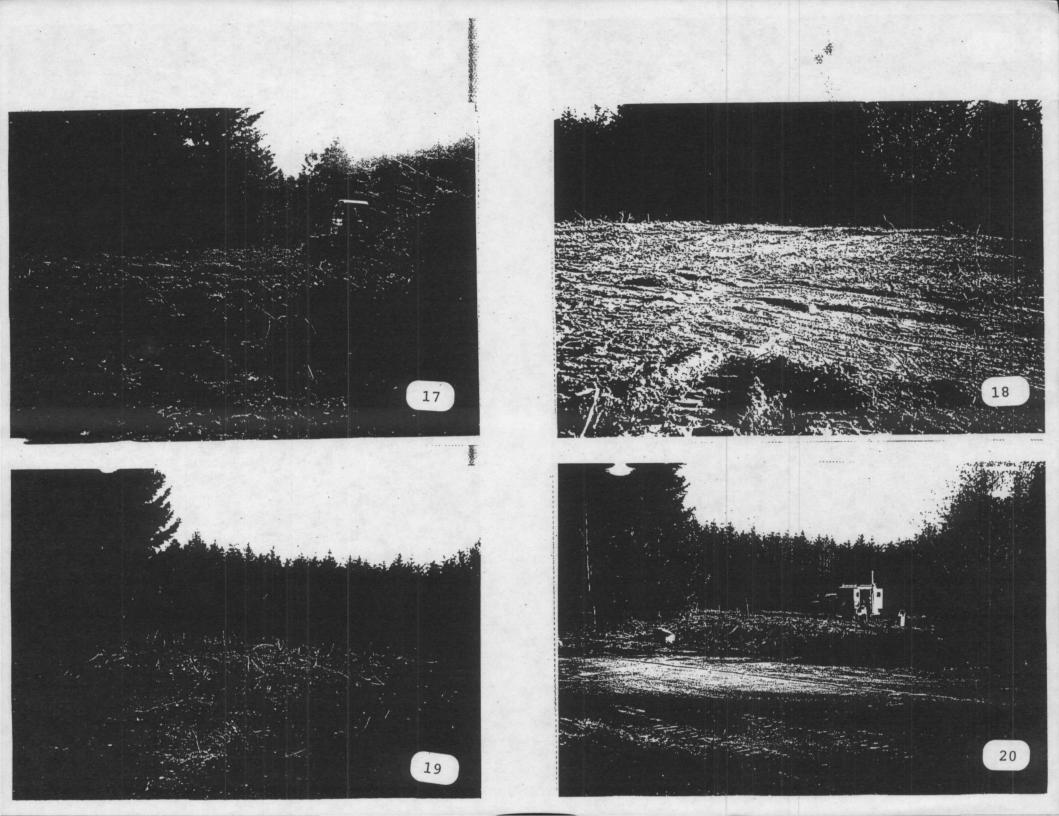
 $\overline{MM} = \overline{Mike Martin}$

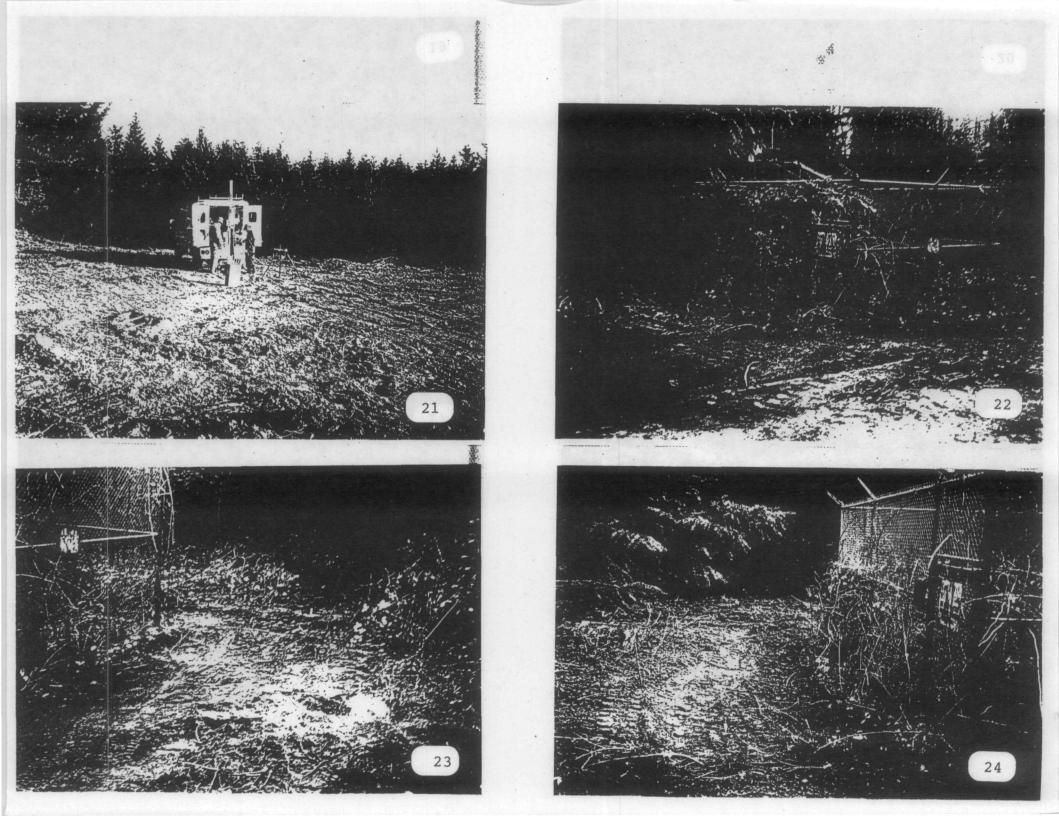






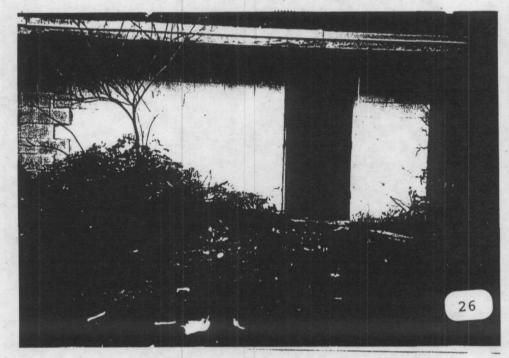


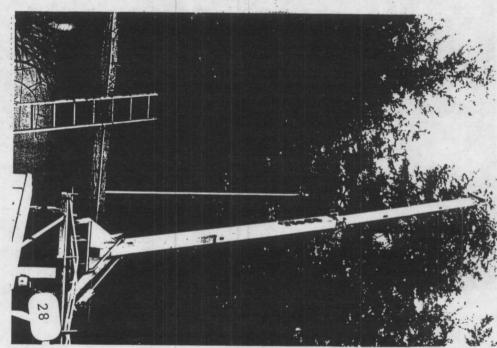


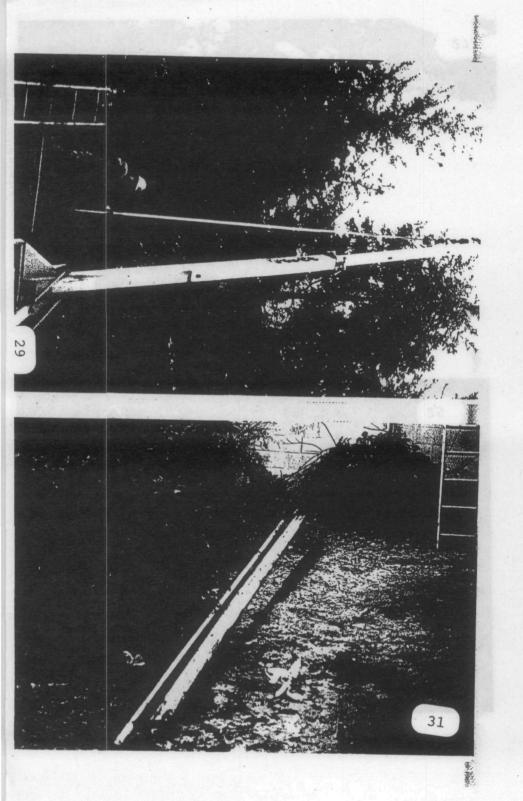


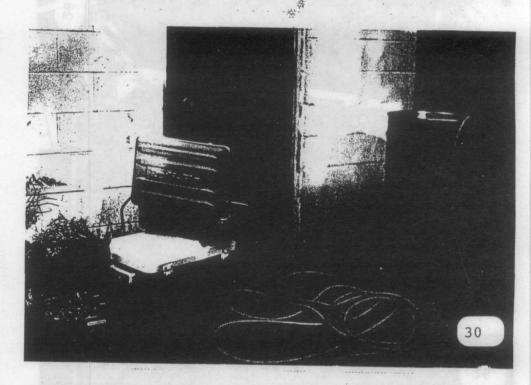




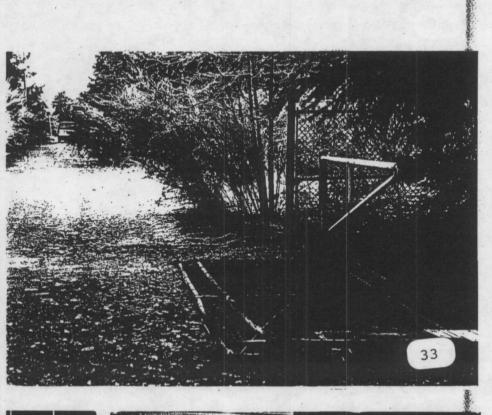




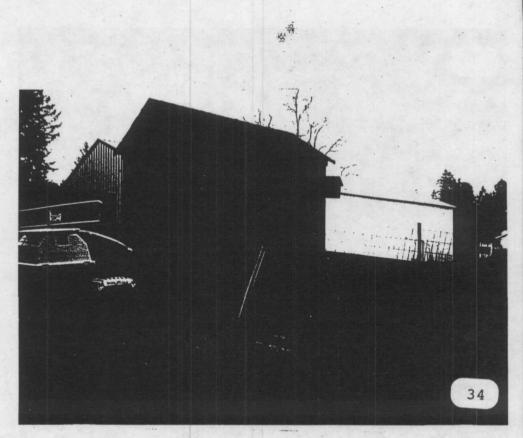


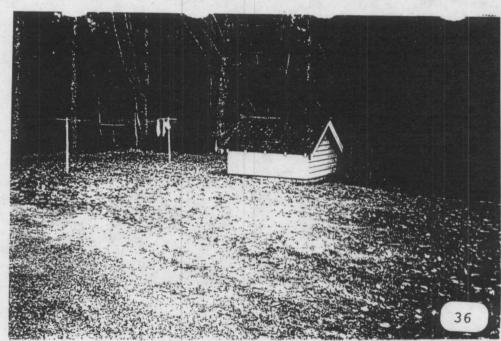


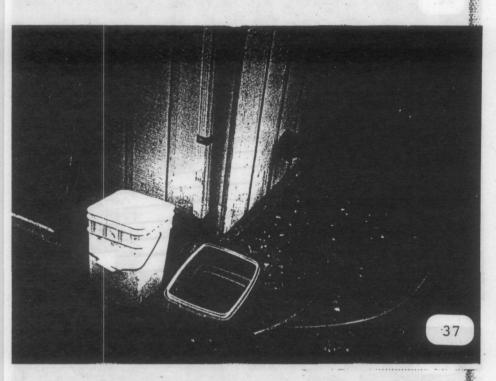


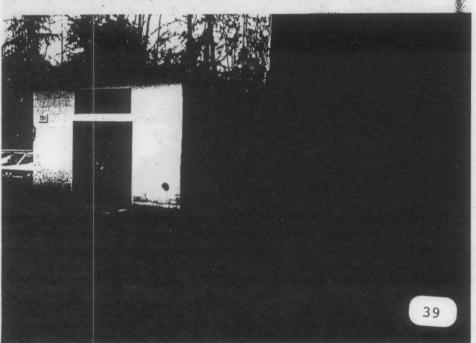




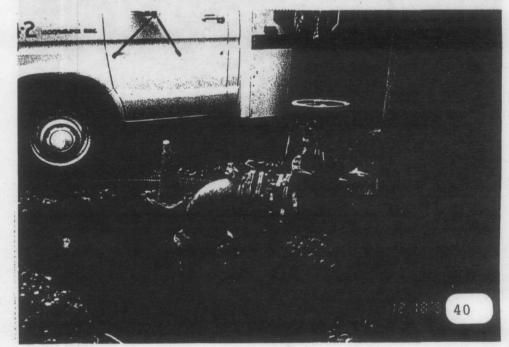






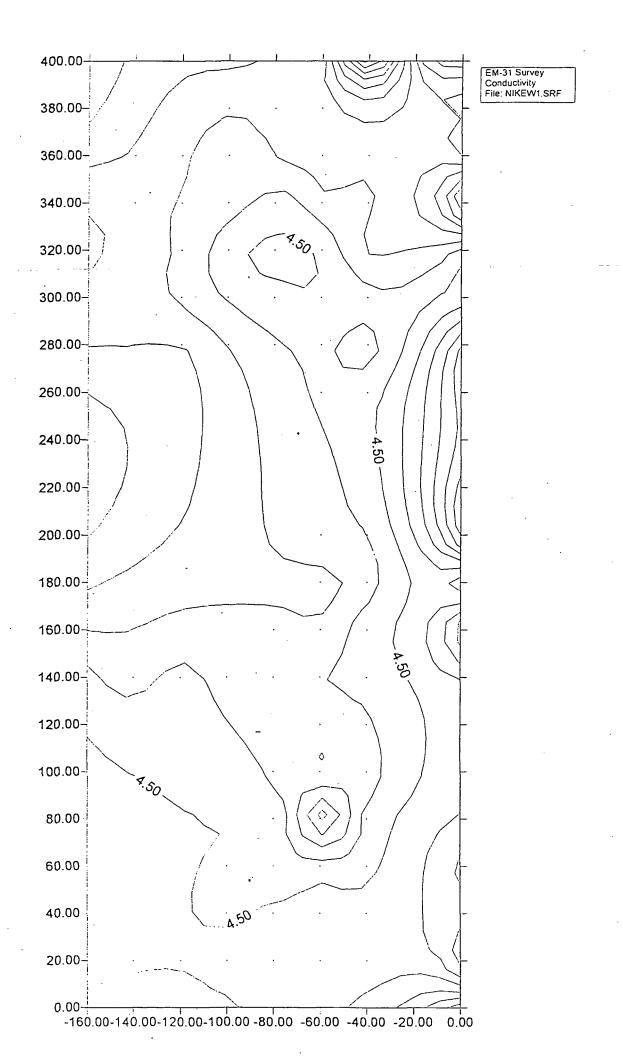


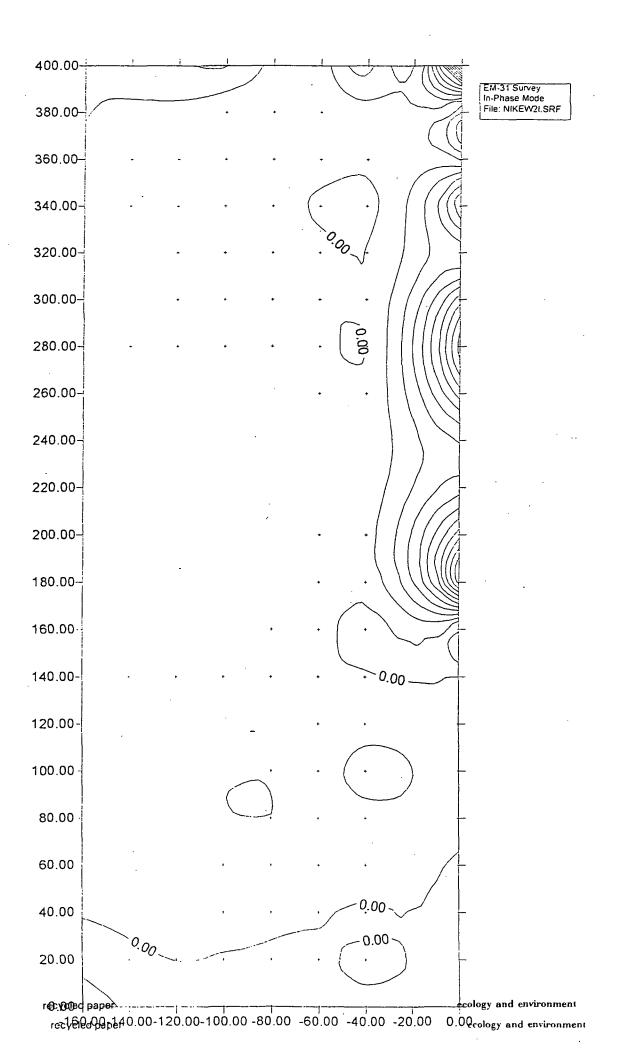


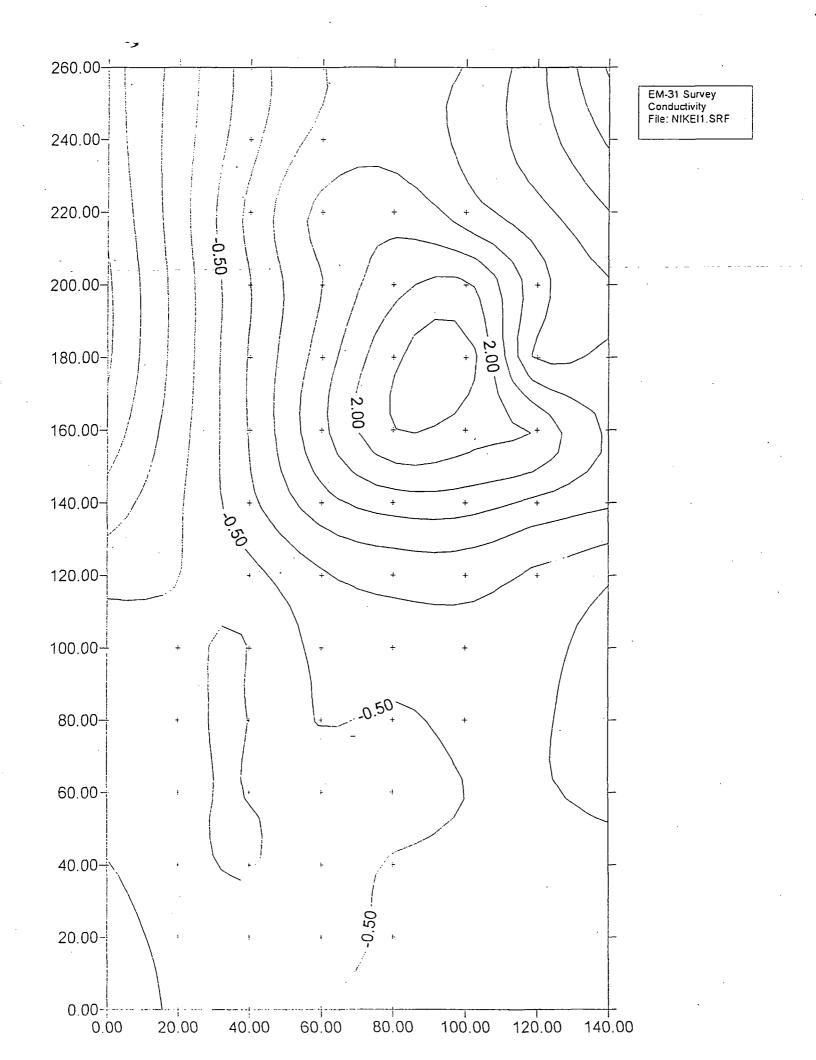


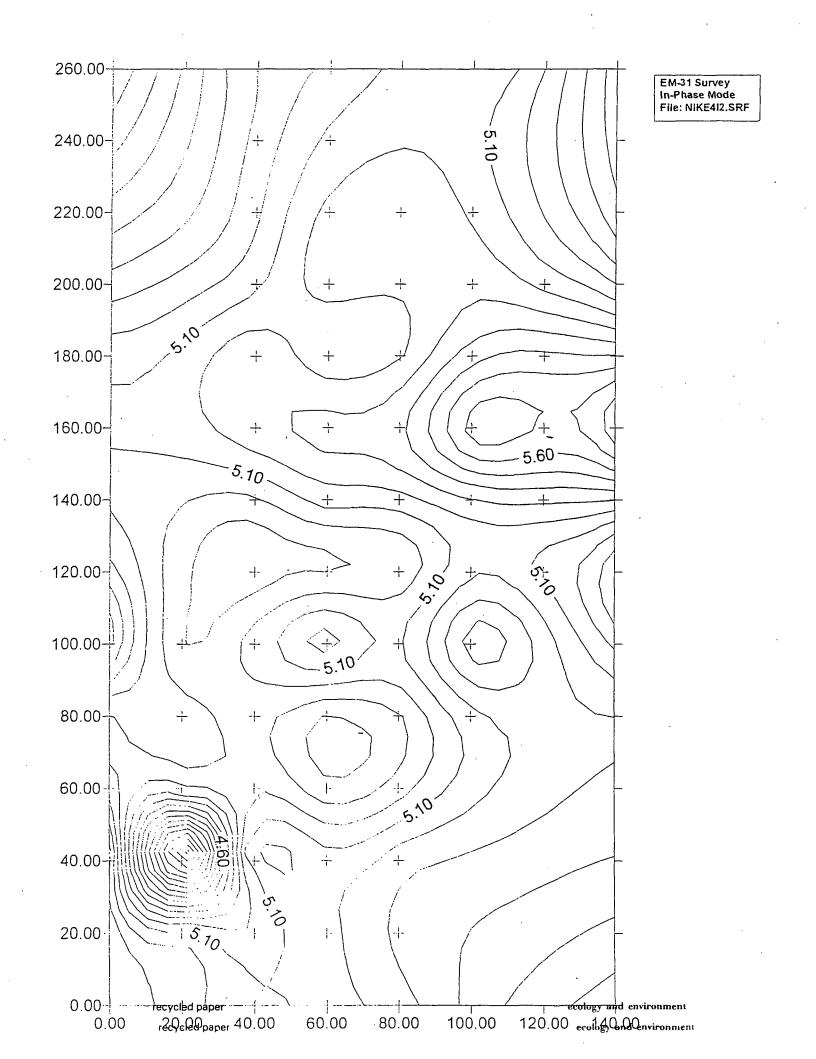
APPENDIX B

EM-31TM INVESTIGATION DATA FORMS









APPENDIX C LABORATORY ANALYTICAL DATA FORMS



ecology and environment, inc.

International Specialists in the Environment

1500 First Interstate Center, 999 Third Avenue Seattle, Washington 98104 Tel: (206) 624-9537, Fax: (206) 621-9832

MEMORANDUM

DATE:

February 11, 1997

TO:

Mike Martin, START Project Manager, E & E, Seattle, WA

FROM:

Mark Woodke, START-Chemist, E & E, Seattle, WA

SUBJ:

Total Petroleum Hydrocarbon Data Quality Assurance Review,

Former Nike Missile Site, Poulsbo, WA

REF:

TDD: 96-11-0007

PAN: AK-07-01-SI-DM

Per the Task Monitor, a data quality assurance review of 11 soil and 10 water samples collected from the Former Nike Missile site in Poulsbo, Washington, was not performed. Total petroleum hydrocarbon (diesel and gasoline ranges) analyses were performed by Columbia Analytical Services, Kelso, WA.

The samples were numbered:

| Soil | GP-6C-7 GP-17-9 GP-6C-2 | GP8C-7 GP-17-2 | GP-8C-2 GP-2-13 | GP-18-4 GP-7C-2 | GP-18-8 GP-7C-7 |
|-------|-------------------------------|-------------------|--------------------|--------------------|--------------------|
| Water | GW-RINS | DW-1 | DW-2 | DW-3 | DW-4 |
| | DW-5 | DW-6 | GW-1 | GW-2 | GP-2-13 |

All qualifiers used by the laboratory, including "N" and "O", were kept on the original Form I's. "U" qualifiers were added by the data reviewer to indicate results below the quantitation limit.

Data Qualifiers and Definitions

U - The material was analyzed for but was not detected. The associated numerical value is the estimated sample quantitation limit.

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:

Ecology & Environment, Inc.

Project:

96110007

Sample Matrix:

Soil

Service Request: K9608273

Date Collected: 12/16-19/96

Date Received: 12/23/96

Date Extracted: 12/27/96

Date Analyzed: 12/30/96

Total Petroleum Hydrocarbons as Diesel Washington DOE Method WTPH-D Units: mg/Kg (ppm) Dry Weight Basis

Analyte:

Diesel

Method Reporting Limit:

25

| Sample Name Lab Code . | |
|------------------------|--------|
| GP-6C-7 K9608273-002 | ND U |
| GP-8C-7 K9608273-003 | ND |
| GP-SC-2 K960S273-004 | ND |
| GP-18-4 K9608273-005 | ND √ |
| GP-1S-S K960S273-006 | 37(N) |
| GP-17-9 K9608273-007 | ND () |
| GP-17-2 K9608273-008 | ND |
| GP-2-13 K9608273-009 | ND |
| GP-7C-2 K9608273-010 | ND |
| GP-7C-7 K960\$273-011 | ND |

K960\$273-021

K961227-MB

MN27-97

ND Y

ND

Ν

GP-6C-2

Method Blank

Quantitated as diesel. The sample contained components that eluted in the diesel range, but the chromatogram did not match the typical diesel fingerprint.

Approved By:

24/122294

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Data: | _ecblogs and envir

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COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:

Ecology & Environment, Inc.

Project:

95110007

Sample Matrix:

Water

Service Request: K9608273

Date Collected: 12/16-19/96

Date Received: 12/23/96

Date Extracted: 12/24/96

Date Analyzed: 12/30,31/96

Total Petroleum Hydrocarbon as Diesel Washington DOE Method WTPH-D

· Units: μg/L (ppb)

Analyte:

Diesel

Method Reporting Limit:

250

| Sample Name | Lab Code | |
|--------------|---------------|--------|
| GW-Rins | K9608273-001 | ND U |
| • | | 1 |
| DW-1 | K960\$273-012 | ND |
| DW-2 | K9608273-013 | ND |
| DW-3 | K9608273-014 | DM |
| DW-4 | K9608273-015 | ND |
| DW-5 | K9608273-016 | ND |
| DW-5 | K9608273-017 | ND |
| GW-1 | K9608273-018 | ND V |
| GW-2 | K9608273-019 | 322(O) |
| GP-2-13 | K9608273-020 | ND U |
| Method Blank | K961224-NB | ND |

MW 17-97

0

Quantitated as diesel. The sample contained an oil component that partially cluted in the diesel range.

Approved By: Zorva Meuneter Date: 1-10-97

CONTRACTOR AND A 1916 (1924)

:0006

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:

Ecology & Environment, Inc. -

Project:

96110007

Sample Matrix: Soil

Service Request: K9608273

Date Collected: 12/19/96
Date Received: 12/23/96

Date Extracted: 12/30/96

Date Analyzed: 12/30,31/96

Total Petroleum Hydrocarbons as Gasoline Washington DOE Method WTPH-G Units: mg/Kg (ppm) Dry Weight Basis

| Sample Name | Lab Code | MRL | Result | |
|----------------------|--------------|-----|--------|--|
| GP-6C-7 | K9608273-002 | 5 | ND U | |
| GP-SC-7 | K9608273-003 | 5 | ND | |
| . GP-SC-2 | K9608273-004 | · 5 | ND | |
| GP-18-4 | K9608273-005 | 5 | ND | |
| GP-18-8 | K9608273-006 | 5 | ND | |
| GP-17-9 | K9608273-007 | 5 | ND | |
| GP-17-2 | K9608273-008 | 5 | ND | |
| GP-2-13 | K9608273-009 | 5 | ND | |
| GP-7C-2 | K9608273-010 | 5 | ND | |
| GP-7C-7 | K9608273-011 | 5 | ND | |
| GP-6C-2 K9608273-021 | | 5 | ND V | |
| Method Blank | K9612/30-MB | 5 | ND | |

MW 2797

Approved By:

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Date: / codogy and environmen

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ecology and environment, inc.

International Specialists in the Environment

1500 First Interstate Center, 999 Third Avenue Seattle, Washington 98104 Tel: (206) 624-9537, Fax: (206) 621-9832 MEMORANDUM

DATE:

February 6, 1997

TO:

Mike Martin, START Project Manager, E & E, Seattle, WA

FROM:

Mark Woodke, START-Chemist, E & E, Seattle, WA////

SUBJ:

Inorganic Data Quality Assurance Review, Former Nike Missile Site,

Poulsbo, WA

REF:

TDD: 96-11-0007

PAN: AK-07-01-SI-DM

The data quality assurance review of 14 soil samples collected from the Former Nike Missile site in Poulsbo, Washington, has been completed. Inorganic analyses were performed by Southwest Laboratory of Oklahoma, Broken Arrow, OK.

The following change was made to the original data validation report:

The "B" flags, indicating a concentration above the instrument detection limit but below the contract required detection limit, were deleted.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION 10

1200 Sixth Avenue Seattle, Washington 98101

January 10, 1997

REPLY TO

ATTN OF: OEA-095

MEMORANDUM

SUBJECT: Data Validation for Nike Missile Launch Site, Case # 25253,

Sample Delivery Group (SDG) MJM864, Metals analysis

FROM: Donald Matheny, Chemist DM

Quality Assurance & Data Unit, OEA

TO: Mark Ader, Site Assessment Manager

Office of Environmental Cleanup

The data validation of metals analysis for the above sample delivery group (SDG) is complete. 14 soil samples were analyzed for metals by Southwest Laboratory of Oklahoma Inc., Broken Arrow, OK. Sample numbers for this SDG are as follows:

| MJM864 | MJM865 | 038MLM | MJM867 | MJM868 |
|----------|--------|--------|---------|--------|
| MJM869 | MJM871 | MJM872 | MJM873 | MJM874 |
| MJMS 7.5 | MJM876 | MJM877 | M.TM878 | |

DATA QUALIFICATIONS

The following comments refer to the laboratory's performance in meeting quality control specifications outlined in the "CLP Statement of Work (CLP-SOW) for Inorganic Analysis, ILMO4.0", and the "USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review, EPA-540/R-94-013". Data qualifications presented herein are based on the information provided for the review.

1.0 TIMELINESS - Acceptable

The holding time from the date of collection to the date of digestion and analyses were met for all metals (180 days, mercury 28 days). Sample collection and analysis dates are provided below. Cooler temperature was 6°C upon receipt at the laboratory.

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| Sample Number | Sample Date | Dates o | f Analyses |
|---------------|-------------|----------|------------|
| | · | ICP | Mercury |
| | • | | |
| MJMS64 | 12/16/96 | 12/28/96 | 12/30/96 |
| MJM865 · | 12/16/96 | 12/28/96 | 12/30/96 |
| MJM866 | 12/18/96 | 12/28/96 | 12/30/96 |
| MJM867 | 12/18/96 | 12/28/96 | 12/30/96 |
| MJM868 | 12/16/96 | 12/28/96 | 12/30/96 |
| MJM869 | 12/16/96 | 12/28/96 | 12/30/96 |
| MJM871 | 12/16/96 | 12/28/96 | 12/30/96 |
| MJM872 | 12/16/96 | 12/28/96 | 12/30/96 |
| MJM873 | 12/17/96 | 12/28/96 | 12/30/96 |
| MJM874. | 12/17/96 | 12/28/96 | 12/30/96 |
| NJM875 | 12/17/96 | 12/28/96 | 12/30/96 |
| MJM876 | 12/17/96 | 12/28/96 | 12/30/96 |
| MJM877 | 12/17/96 | 12/28/96 | 12/30/96 |
| MJM878 · | 12/17/96 | 12/28/96 | 12/30/96 |
| | · | | |

2.0 INSTRUMENT CALIBRATION/VERIFICATION - Acceptable

For ICP-AES analysis, instrument calibration was performed with a blank and single calibration standard for each element. Recoveries for verification standards (96-106%) met the frequency (10%) and recovery (90-110%) requirements. CRDL standards were analyzed at the required frequency (5%) and concentrations.

For mercury analysis, the instrument was calibrated with a blank and five standards with a resulting correlation coefficient 0.999 (criterion: \geq 0.995). Recoveries for verification standards (93-101%) met the frequency (10%) and recovery (80-120%) criteria. A CRDL standard was analyzed at the required 0.2 ppb concentration.

3.0 ICP-AES INTERFERENCE CHECK SAMPLE (ICS) - Acceptable

Percent recoveries for the ICS (86-113%) met the 80-120% recovery criterion and the 5% frequency requirements for analysis. No interferences are suspected based upon ICS performance and indigenous element concentrations.

4.0 LABORATORY CONTROL SAMPLES (LCS) - Acceptable

All metals results for the LCS were within the established control limits for soils.

5.0 BLANKS - Acceptable

Results for all blanks were non-detected or below a factor of 5 times that found in associated samples.

1 INORGANIC ANALYSES DATA SHEET

| EPA | SAMPLE | NO |
|-----|--------|----|
|-----|--------|----|

| wab Name: SOUT | THWEST_LABOR | RATORY | Contract: 6 | 8-D5-0137 | MJM864 |
|----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|-----------|-----------------|
| ab Code: SWO | Ca | se No.: 25 | 253_ SAS No. | : | SDG No.: MJM864 |
| atrix (soil/w | vater): SOIL | <i></i> | | Lab Samp | le ID: 28060.07 |
| evel (low/med | i): LOW_ | | | Date Rec | eived: 12/21/96 |
| Solids: | _78. | 1 | | | |
| Co | oncentration | Units (ug | /L or mg/kg dry | y weight) | : MG/KG |
| | CAS No. | Analyte | Concentration | C Q | М |
| | 7440-70-2 7440-47-3 7440-48-4 7440-50-8 7439-89-6 7439-95-4 7439-96-5 7439-97-6 7440-02-0 7440-09-7 7782-49-2 7440-22-4 | Antimony Arsenic Barium Beryllium Cadmium Calcium Chromium Cobalt Copper Iron Lead Magnesium Manganese Mercury Nickel Potassium Selenium Silver Sodium Thallium | 17000 0.77 2.1 97.9 0.33 0.26 2450 20.8 7.6 9.3 15100 5.3 2940 572 0.17 29.9 326 1.0 0.26 261 1.2 40.5 42.0 | | |
| lor Before: | BROWN | Clarit | y Before: | | Texture: MEDIUM |
| lor After: | XELTOM | Clarit | y After: CLEA | R | Artifacts: |
| mments: | | | | | |
| | | | | | |

FORM I - IN

ILM04.0

| | | INORGANIC | ANALYSES DATA | SHEET | | | |
|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-------|--------|
| Lab Name: SOUT | THWEST_LABOR | ATORY | Contract: 6 | 8-D5 - 013 | | M865 | |
| Lab Code: SWO: | | se No.: 25 | 253_ SAS No. | : | SDG N | o.: M | JM864 |
| Matrix (soil/w | vater): SOIL | <u>-</u> | | Lab Samı | ole ID: | 28060 | . 08 |
| Jevel (low/med | i): LOW_ | . | | Date Rec | ceived: | 12/21 | /96 |
| Solids: | | | | | | | |
| Co | ncentration | Units (ug | /L or mg/kg dry | y weight) | : MG/KG | | |
| | CAS No. | Analyte | Concentration | C Q | М | | |
| | 7440-36-0 7440-38-2 7440-39-3 7440-41-7 7440-43-9 7440-47-3 7440-48-4 7440-50-8 7439-93-6 7439-95-4 7439-95-4 7439-95-5 7439-97-6 7440-02-0 7440-09-7 7782-49-2 7440-22-4 | Aluminum Antimony Arsenic Barium Beryllium Cadmium Calcium Chromium Cobalt Copper Iron Lead Magnesium Manganese Mercury Nickel Potassium Selenium Silver Sodium Thallium Vanadium Zinc | 13000 0.67 1.9 38.1 0.22 0.22 1360 21.2 6.8 68.1 14400 1.9 4680 209 0.11 30.4 412 1.1 0.22 248 0.45 38.5 21.4 | U X NJ B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U B U U | p p p p p p | 7/10/ | 197 |
| olor Before: | BROWN | Clarit | y Before: | | Texture | :: M | MEDIUM |
| olor After: | YELLOW | Clarit | y After: CLEA | LR | Artifac | ts: _ | |
| omments: | | • | | | | | |

| EPA SAMPLE | NO. | |
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|------------|-----|--|

| | | INORGANIC | ANALYSES DATA | SHEEI | | , |
|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|-----------|-------------|---------------|
| ab Name: SOUT | HWEST_LABOR | ATORY | Contract: 6 | 58-D5-013 | 7 MJM86 | 6 |
| ab Code: SWOK | : Ca | se No.: 25 | 253_ SAS No. | : | SDG No.: | MJM864 |
| etrix (soil/w | ațer): SOIL | | | Lab Samp | ole ID: 280 | 60.09 |
| evel (low/med |): LOW_ | _ | . . | Date Rec | ceived: 12/ | 21/96 |
| Solids: | _85. | 9 | | | | |
| Со | ncentration | Units (ug | /L or mg/kg dr | y weight) | : MG/KG | |
| | 7429-90-5 7440-36-0 7440-38-2 7440-39-3 7440-41-7 7440-43-9 7440-47-3 7440-48-4 7440-50-8 7439-95-4 7439-95-4 7439-96-5 7439-97-6 7440-02-0 7440-02-0 7440-23-5 7440-28-0 | Analyte Aluminum Antimony Arsenic Barium Beryllium Cadmium Calcium Chromium Cobalt Copper Iron Lead Magnesium Manganese Mercury Nickel Potassium Selenium Silver Sodium Thallium Vanadium Zinc | Concentration 17300 0.88 2.5 74.3 0.37 0.65 2370 44.4 19.8 12.5 22100 4.2 18300 359 0.12 271 431 1.2 0.23 267 1.3 37.6 28.8 | | χ | ,/97 |
| or Before: | BROWN | Clarit | y Before: | | Texture: | MEDIUM |
| or After: | YELLOW | Clarit | y After: CLEA | LR_ | Artifacts: | · . |
| ments: | | | | | | |

FORM I - IN

| ab Name: SOUTH | WEST_LABOR | ATORY | | | MJM86 | 57 |
|----------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|-----------|------------|--------|
| ab Code: SWOK | | | Contract: 6 | 8-D5-0137 | | |
| | Cas | - | | | | MJM864 |
| atrix (soiĺ/wat | _ | | _ | | le ID: 280 | |
| evel (low/med): | : LOW | <u>_</u> . | | Date Rec | eived: 12/ | 21/96 |
| Solids: | _83.9 | | | • • • | | _ |
| Conc | entration | Units (ug/ | /L or mg/kg dr | y weight) | : MG/KG | |
| | LAS No. | Analyte | Concentration | c Q. | M | |
| 7 7 7 7 7 7 7 7 7 7 7 7 | 440-36-0 440-38-2 440-39-3 440-43-9 440-47-3 440-48-4 440-48-4 440-50-8 440-50-8 439-95-4 439-95-5 440-09-7 782-49-2 440-23-5 440-28-0 440-62-2 | Aluminum Antimony Arsenic Barium Beryllium Cadmium Calcium Chromium Chromium Cobalt Copper Iron Lead Magnesium Manganese Mercury Nickel Potassium Selenium Silver Sodium Thallium Vanadium Zinc | 8800 0.72 1.7 27.2 0.24 0.24 2400 21.3 5.9 8.7 11300 1.3 4100 160 0.12 32.6 284 0.95 0.24 271 0.54 32.0 16.3 | | | 0/97 |
| olor Before: BI | ROWN | Clarit | y Before: | | Texture: | MEDIUM |
| olor After: YI | ELLOW | Clarit | y After: CLEA | R_ ' | Artifacts | : |
| omanents: | • | | | | | |

| מסם | SAMPLE | NΤΟ |
|-----|--------|-----|
| ₽PA | DUMBLE | MO. |

| ab Name: SOU | THWEST LABOR | LATORY | Contract: 6 | 8-D5-0131 | MJM868 |
|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|-----------|------------------|
| | _ | | 253_ SAS No. | | |
| atrix (soil/ | vater): SOIL | · | | Lab Samp | ple ID: 28060.11 |
| evel (low/med | i): LOW_ | _ | | Date Rec | ceived: 12/21/96 |
| Solids: | _89 | 3 | | | · |
| Co | oncentration | Units (ug | /L or mg/kg dr | y weight) | : MG/KG |
| | CAS No. | Analyte | Concentration | C Q | М |
| | 7440-38-2 7440-39-3 7440-41-7 7440-43-9 7440-47-3 7440-48-4 7440-50-8 7439-89-6 7439-95-4 7439-95-4 7439-96-5 7439-97-6 7440-02-0 7440-02-0 7440-22-4 7440-23-5 7440-28-0 | Aluminum Antimony Arsenic Barium Beryllium Cadmium Calcium Chromium Cobalt Copper Iron Lead Magnesium Manganese Mercury Nickel Potassium Selenium Silver Sodium Thallium Vanadium Zinc | 18200 0.67 2.3 76.6 0.29 0.22 2910 29.6 8.8 13.8 17000 3.1 4340 243 0.11 39.3 480 0.90 0.90 0.22 290 0.47 43.2 28.0 | | |
| .or Before: | BROWN | Clarit | y Before: | | Texture: MEDIUM |
| or After: | YELLOW | Clarit | y After: CLEA | R_ | Artifacts: |
| ments: | | | | | |
| | | | | | |

FORM I - IN

| EPA | SAMPLE | NO: |
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| | | 140 |

| | | | MJM869 | • |
|----------------------|------------------|--------------------|-----------------|---|
| Lab Name: SOUTHWEST_ | LABORATORY Con | ntract: 68-D5-0137 | | |
| Lab Code: SWOK | Case No.: 25253_ | SAS No.: | SDG No.: MJM864 | |
| Matrix (soil/water): | SOIL_ | Lab Sample | E ID: 28060.12 | |
| level (low/med): | LOW | Date Rece | ived: 12/21/96 | |
| Solias: | _91.8 | | | |

Concentration Units (ug/L or mg/kg dry weight): MG/KG

| 1 | 1 | | 1 | | _ | 1 |
|------------------------|------------------------|---------------|----------|---------------|------------|--------|
| CAS No. | Analyte | Concentration | С | Q | М | |
| 7429-90-5 7440-36-0 | Aluminum_ Antimony_ | 7650 0.65 | | , Huj | ا ما ما | |
| 7440-38-2 7440-39-3 | Arsenic Barium | 1.3 | X X | · | р. П | |
| 7440-41-7 7440-43-9 | Beryllium Cadmium | 0.22 | Ū | | ام ا م | |
| 7440-70-2 | Calcium_ | 3190 | _ | | <u>p</u> _ | |
| 7440-47-3 7440-48-4 | Chromium_ Cobalt | 16.5 6.4 | ₩ B | | ים ים | · _ |
| 7440-50-8 | Copper | 9.4 | | | <u>D</u> _ | DH / |
| 7439-89-6 7439-92-1 | IronLead | 12100 | - | | p P | 1/10/4 |
| 7439-95-4 | Magnesium | 3560 | | | P_ | |
| 7439-96-5 7439-97-6 | Manganese Mercury | 202 | וֹּט | | D CV | |
| | NickelPotassium | 28.6 | <u>B</u> | | p P | |
| 7782-49-2 | Selenium_ | 0.87 | ป็ | | p | • • |
| 7440-22-4 | SilverSodium | | B | | P P | |
| 7440-28-0 | Thallium_ | 0.53 | B | | P_ | |
| 7440-62-2 7440-66-6 | Vanadium_ Zinc | 27.0 22.4 | _ | | P_ P_ | |
| | | | _ | | - | |

| olor Before: | GREY | Clarity Before | e: | Texture: | MEDIUM |
|--------------|----------------------------------------|----------------|----------|------------|--------|
| olor After: | YELLOW | Clarity After | : CLEAR_ | Artifacts: | |
| omments: | · | | | | |
| | | | | | |
| | ······································ | | | | |

| EPA | SAMPLE | NO |
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| ab Name: SOU | THWEST_LABOR | LATORY | Contract: 6 | 8-D5-0137 | MJM871 |
|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|-------------|----------------------------------------------|
| | | | 253_ SAS No. | | |
| atrix (soil/v | vacer): SUIL | | | rap Samp | ole ID: 28060.13 |
| evel (low/med | l): LOW_ | | | Date Rec | eived: 12/21/96 |
| Solids: | _89. | 3 | | | |
| Cc | oncentrati <u>o</u> n | Units (ug | /L or mg/kg dr | y weight) | : MG/KG |
| • | | Analyte Aluminum_ Antimony_ | Concentration184000.67 | U - HUJ | M |
| | 7440-38-2 7440-39-3 7440-41-7 7440-43-9 7440-47-3 7440-48-4 7440-50-8 7439-96-6 7439-96-5 7439-96-5 7439-97-6 7440-02-0 7440-02-0 7440-02-0 7440-23-5 7440-23-5 7440-28-0 7440-66-6 | Arsenic Barium Beryllium Cadmium Calcium Chromium Cobalt Copper Iron Lead Magnesium Manganese Mercury Nickel Potassium Selenium Silver Sodium Thallium Vanadium Zinc | 1.7 69.7 0.24 0.22 2420 27.4 8.4 11.3 16400 2.1 4630 221 0.11 38.3 452 0.90 0.22 276 0.55 45.5 23.2 | | בן הים ים י |
| | BROWN | | y Before: | | Texture: MEDIUM |
| lor After: | YELLOW | Clarit | y After: CLEA | .R | Artifacts: |
| กลายกร: | | | | | |
| | | | | | |

FORM I - IN

| . Inh Name. Collegnie Contra | ct: 68-D5-0137 |
|---------------------------------------|-------------------------|
| Lab Name: SOUTHWEST_LABORATORY Contra | CC: 68-D3-0137 |
| Lab Code: SWOK Case No.: 25253_ SA | S No.: SDG No.: MJM864 |
| Matrix (soil/water): SOIL_ | Lab Sample ID: 28060.14 |
| Level (low/med): LOW | Date Received: 12/21/96 |
| % Solids: _90.9 | |
| Concentration Units (ug/L or mg/) | kg dry weight): MG/KG |
| CAS No Analyte Concentra | ation C O M |

| CAS No. | Analyte | Concentration | С | Q | М | |
|-----------|-----------|---------------|--------------|----------|-----|---------|
| CAS NO. | Andryce | Concentration | | \ \ \ | ' ' | |
| 7429-90-5 | Aluminum | 11000 | | | P | |
| 7440-36-0 | Antimony_ | 0.66 | | <u> </u> | p_ | |
| 7440-38-2 | Arsenic | 1.7 | \mathbb{B} | | P_ | |
| 7440-39-3 | Barium | 49.0 | _ | | P_ | |
| 7440-41-7 | Beryllium | 0.22 | Ū | | P | |
| 7440-43-9 | Cadmium | 0.22 | U | · | P_ | |
| 7440-70-2 | Calcium_ | 2540 | _ | | P_ | |
| 7440-47-3 | Chromium_ | 20.4 | | | P_ | · 7M |
| 7440-48-4 | Cobalt | 6.9 | B | | P_ | 1/10/47 |
| 7440-50-8 | Copper | 10.4 | _ | | P_ | / /27 |
| 7439-89-6 | Iron | 12200 | | | Ρ | 1/10/71 |
| 7439-92-1 | read | 1.9 | _ | | P_ | i |
| 7439-95-4 | Magnesium | 4310 | _ | | P_ | 1 |
| 7439-96-5 | Manganese | 214 | | | P_ | |
| 7439-97-6 | Mercury | 0.11 | Ū | | C√ | |
| 7440-02-0 | Nickel | 47.9 | | | P_ | |
| 7440-09-7 | Potassium | 329 | ষ্ট্ | | P_ | |
| 7782-49-2 | Selenium_ | 0.88 | U | اہد | P_ | |
| 7440-22-4 | Silver | 0.22 | υļ | - | P_ | |
| 7440-23-5 | Sodium | 277 | \mathbb{P} | | P_ | |
| 7440-28-0 | Thallium_ | | B | | P_ | |
| 7440-62-2 | Vanadium_ | 29.6 | | | P_ | |
| 7440-66-6 | Zinc | 21.7 | _ | | P_ | |
| | | | _ | | | |
| | | | _ | | | |

| olor Before: | BROWN | Clarity Before: | | Texture: | MEDIUN |
|--------------|--------|-----------------|--------|------------|--------|
| olor After: | YELLOW | Clarity After: | CLEAR_ | Artifacts: | • |
| omments: | | | | | |
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| EPA | SAMPLE | NO |
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| | | INORGANIC | ANALYSES DATA | SHEET | , |
|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|-----------------------------------------|------------------|
| ib Name: SOUT | THWEST_LABOR | LATORY | Contract: 6 | 8-D5-0137 | MJM873 |
| ib Code: SWO | Ca | se No.: 25 | 253_ SAS No. | : | SDG No.: MJM864 |
| trix (soil/w | vater): SOIL | ; <u></u> | | Lab Samp | ole ID: 28060.15 |
| vel (low/med | 1): LOW_ | _ | | Date Rec | eived: 12/21/96 |
| Solids: | _85. | 7 | | | • |
| Co | ncentration | Units (ug | /L or mg/kg dr | y weight) | : MG/KG |
| · | CAS No. | Analyte | Concentration | C Q | М |
| | 7440-41-7 7440-43-9 7440-43-9 7440-47-3 7440-48-4- 7440-50-8 7439-99-6 7439-95-4 7439-96-5 7439-97-6 7440-02-0 7440-09-7 7782-49-2 7440-22-4 7440-23-5 | Aluminum Antimony Arsenic Barium Beryllium Cadmium Calcium Chromium Cobalt Copper Iron Lead Magnesium Manganese Mercury Nickel Potassium Selenium Silver Sodium Thallium Vanadium Zinc | 12900 | U P U U D U D U D D U D D D D D D D D D | |
| or Before: | BROWN | Clarit | y Before: | | Texture: MEDIUM |
| or After: | YELLOW | Clarit | y After: CLEA | R_ | Artifacts: |
| ments: | | | | | |
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FORM I - IN

EPA SAMPLE NO.

| ab Name: SOUTHWEST_ | LABORATORY Contrac | MJM874 ct: 68-D5-0137 |
|---------------------|----------------------|--------------------------|
| ab Code: SWOK | Case No.: 25253_ SAS | S No.: SDG No.: MJM864 |
| atrix (soil/water): | SOIL_ | Lab Sample ID: 28060.16 |
| evel (low/med): | LOW | Date Received: 12/21/96 |
| Solids: | _88.1 | · |

Concentration Units (ug/L or mg/kg dry weight): MG/KG

| 7440-38-2 Arsenic 2.0 P P 7440-39-3 Barium 54.1 P P 7440-41-7 Beryllium 0.23 U P 7440-43-9 Cadmium 0.23 U P 7440-40-2 Calcium 2980 P P 7440-46-4 Chromium 20.6 P P 7439-89-5 Iron 13800 P P 7439-92-1 Lead 2.9 P P 7439-95-4 Magnesium 3530 P P 7439-97-5 Mercury 0.11 U CV 7440-02-0 Nickel 35.0 P 7440-09-7 Potassium 438 P P 7440-22-4 Silver 0.23 U P 7440-23-5 Sodium 318 P P 7440-62-2 Vanadium 36.1 P 7440-66-6 Zinc 24.6 P | 7440-41-7 7440-43-9 7440-70-2 7440-47-3 7440-48-4 7440-50-8 7439-92-1 7439-95-4 7439-96-5 7439-96-5 7439-97-6 7440-02-0 7440-09-7 7782-49-2 7440-23-5 7440-28-0 7440-62-2 |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

| lor Before | e: BROWN | Clarity Before: | Texture: MEDIUM |
|------------|----------|-------------------|-----------------|
| lor After | : YELLOW | Clarity After: CL | EAR_ Artifacts: |
| mments: | | | • |
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U.S. EPA - CLP

1 INORGANIC ANALYSES DATA SHEET

| EPA | SAMPLE | NO |
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| ab Name: SOU | THWEST LABOR | LATORY | Contract: 6 | 8-D5-013 | . MJM8 | 75 |
|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|-------------------------------------------|---------------------------------------|----------------|
| | _ | | 253_ SAS No. | | • | : MJM864 |
| atrix (soil/w | vater): SOIL | ' <u></u> | | Lab Samp | ole ID: 280 | 060.17 |
| evel (low/med | i): LOW_ | _ | | Date Rec | ceived: 12/ | /21/96 |
| Solids: | _89. | 4 | • | | | |
| Co | CAS No. 7429-90-5 7440-36-0 7440-38-2 7440-41-7 7440-43-9 7440-47-3 7440-47-3 7440-47-3 7440-50-8 7439-92-1 7439-95-4 7439-95-4 7439-95-7 7439-95-7 7439-95-7 7439-95-7 7439-95-7 7439-95-7 7440-02-0 7440-02-0 7440-02-0 7440-02-0 7440-02-0 7440-23-5 7440-28-0 | Analyte Aluminum Antimony Arsenic Barium Beryllium Cadmium Calcium Chromium Cobalt Copper Iron Lead Magnesium Manganese Nercury Nickel Potassium Selenium Silver Sodium Thallium | 33.4 235 0.99 0.22 247 0.45 | C Q B J J J J J J J J J J J J J J J J J J | M p p p p p p p p p | DM 1/10/4.7 |
| | | Zinc | 22.2 | | P P P P P P P P P P P P P P P P P P P | |
| lor Before: | | | y Before: y After: CLEA | | Texture: | |
| TOT WITET: | TETTOW | CIGILL | y Arcer: CDEA | <i>τ</i> _ | Artifacts | : |

FORM I - IN

ILM04.0

uments:

| EPA | SAMPLE | NO |
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| Lab Name: SOUT | ' 'HWEST_LABOR | LATORY | Contract: 6 | 8-D5-0137 | MJM876 |
|----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|------------|-----------------|
| Lab Code: SWOK | Ca | se No.: 25 | 253_ SAS No. | : | SDG No.: MJM864 |
| 4atrix (soil/w | ater): SOIL | <u>, </u> | | Lab Sampl | e ID: 28060.18 |
| Level (low/med |): LOW | <u> </u> | · · · · · · · · · · · · · · · · · · · | Date Rece | ived: 12/21/96 |
| ; Solids: | _91. | 5 | • | | |
| Со | ncentration | Units (ug | /L or mg/kg dr | y weight): | MG/KG |
| | CAS No. | Analyte. | Concentration | C . Q | M |
| | 7440-38-2 7440-39-3 7440-41-7 7440-43-9 7440-47-3 7440-48-4 7440-50-8 7439-92-1 7439-95-4 7439-95-4 7439-95-6 7439-97-6 7440-02-0 7440-09-7 | Aluminum Antimony Arsenic Barium Beryllium Cadmium Calcium Chromium Cobalt Copper Iron Lead Magnesium Manganese Mercury Nickel Potassium Selenium Silver | 10800 0.66 1.4 39.0 0.22 0.22 2300 21.8 6.5 11.2 11800 1.7 3870 189 0.11 35.3 385 0.87 0.22 | | |

| olor Before: | BROWN | Clarity Before | : | Texture: | MEDIUM |
|--------------|--------|----------------|--------|------------|--------|
| olor After: | YELLOW | Clarity After: | CLEAR_ | Artifacts: | |
| omments: | | • | | | |
| | | | | | |
| | | | | | |

7440-23-5

7440-28-0

7440-62-2 7440-65-6

Thallium

Vanadium

Sodium

Zinc

·Ρ

272

0.78 🕱

29.3

22.4

| EPA : | SAMPLE | NO |
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|-------|--------|----|

| ib Name: SOU | THWEST LABOR | LATORY | Contract: 6 | 8-D5-0137 | MJM877 |
|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|-------------|-----------------|
| | _ | | | | SDG No.: MJM864 |
| trix (soil/ | | | _ | | le ID: 28060.19 |
| vel (low/med | d): LOW_ | | | Date Rec | eived: 12/21/96 |
| Solids: | _87. | 6 | | · | • |
| Co | oncentration | Units (ug | /L or mg/kg dry | y weight) | : MG/KG |
| | CAS No. | Analyte | Concentration | C Q | м . |
| | 7429-90-5 7440-36-0 7440-38-2 7440-39-3 7440-41-7 7440-43-9 7440-47-3 7440-48-4 7440-50-8 7439-92-1 7439-95-4 7439-95-6 7439-97-6 7440-02-7 7782-49-2 7440-23-5 7440-23-5 7440-62-2 7440-62-2 | Aluminum_ Antimony_ Arsenic_ Barium_ Beryllium Cadmium_ Calcium_ Chromium_ Cobalt_ Copper_ Iron_ Lead_ Magnesium Manganese Mercury_ Nickel_ Potassium Selenium_ Silver_ Sodium_ Thallium_ Vanadium_ Zinc_ | 13.8 16600 30.2 3700 350 | | |
| or Bafore: | BROWN | Clarit | y Before: | | Texture: MEDIUM |
| or After: | YELLOW | Clarit | y After: CLEA | R | Artifacts: |
| ເທອ:ນະສ: | | | • | | |
| | | | | | |

FORM I - IN

| • | | TWOKGANIC | ANALYSES DATA | DUEEI | | |
|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|------------|--------------|---------------|
| ab Nama: SOU | JTHWEST LABOR | <u> </u> | Contract: 6 | 8-D5-0137 | MJM878 | |
| | _ | • | 253_ SAS No. | | SDG No.: M | JM864 |
| atrix (soil/ | water): SOIL | ·_ | | Lab Sampl | e ID: 28060 | .20 |
| evel (low/ma | ed): LOW_ | · | | Date Rece | ived: 12/21 | /96 |
| Solids: | 89. | | | | • | |
| . C | oncentration | Units (ug | /L or mg/kg dr | y weight): | MG/KG | |
| | CAS No. | Analyte | Concentration | C Q | М | |
| | 7440-38-2 7440-39-3 7440-41-7 7440-43-9 7440-47-3 7440-48-4 7440-50-8 7439-89-6 7439-95-4 7439-96-5 7439-96-5 7440-02-0 7440-09-7 7782-49-2 7440-23-5 7440-66-6 | Antimony_Arsenic_Barium_Beryllium Cadmium_Calcium_Chromium_Cobalt_Copper_Iron_Lead_Magnesium Manganese Mercury_Nickel_Potassium Selenium_Silver_Sodium_Thallium_Vanadium_Zinc | 0.22 2220 16.7 5.7 9.2 11100 1.5 3720 296 0.11 29.0 325 0.89 0.22 276 0.66 29.1 18.5 | | | 10/97 |
| olor Before: | | | y Before: | | Cexture: M | |
| olor After: | YELLOW | Clarit | y After: CLEA | R_ / | Artifacts: _ | |
| omments: | | | | | | |
| | | | | | | _ |
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ecology and environment, inc.

International Specialists in the Environment

15CO First Interstate Center, 999 Third Avenue Seattle, Washington 98104 Tel: (206) 624-9537, Fax: (206) 621-9832 MEMORANDUM

DATE:

February 6, 1997

TO:

Mike Martin, START Project Manager, E & E, Seattle, WA

FROM:

Mark Woodke, START-Chemist, E & E, Seattle, WA

SUBJ:

Inorganic Data Quality Assurance Review, Former Nike Missile Site,

Poulsbo, WA

REF:

TDD: 96-11-0007

PAN: AK-07-01-SI-DM

The data quality assurance review of 14 soil samples collected from the Former Nike Missile site in Poulsbo, Washington, has been completed. Inorganic analyses were performed by Southwest Laboratory of Oklahoma, Broken Arrow, OK.

The following change was made to the original data validation report:

The "B" flags, indicating a concentration above the instrument detection limit but below the contract required detection limit, were deleted.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION 10

1200 Sixth Avenue Seattle, Washington 98101

January 10, 1997

REPLY TO

ATTN OF: OEA-095

MEMORANDUM

SUBJECT: Data Validation for Nike Missile Launch Site, Case # 25253,

Sample Delivery Group (SDG) MJM879, Metals analysis

FROM:

Donald Matheny, Chemist

Quality Assurance & Data Unit, OEA

TO:

Mark Ader, Site Assessment Manager

Office of Environmental Cleanup

The data validation of metals analysis for the above sample delivery group (SDG) is complete. 14 soil samples were analyzed for metals by Southwest Laboratory of Oklahoma Inc., Broken Arrow, OK. Sample numbers for this SDG are as follows:

| NJMS79 | MJMSSO | MJM881 | MJM882 | MJM883 |
|---------|--------|----------|--------|--------|
| PSSMCM | 288MLM | MJM886 . | 888MLM | e88MLM |
| 0 CSMLM | MJM891 | MJM892 | MJM893 | |

DATA QUALIFICATIONS

The following comments refer to the laboratory's performance in meeting quality control specifications outlined in the "CLP Statement of Work (CLP-SOW) for Inorganic Analysis, ILMO4.0", and the "USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review, EPA-540/R-94-013". Data qualifications presented herein are based on the information provided for the review.

1.0 TIMELINESS - Acceptable

The holding time from the date of collection to the date of digestion and analyses were met for all metals (180 days, mercury 28 days). Sample collection and analysis dates are provided below. Cooler temperature was 6°C upon receipt at the laboratory.

| | | | • |
|---------------|-------------|----------|-----------------------|
| Sample Number | Sample Date | Dates o | f Analyses Mercury |
| • | | | |
| MJMS79 | 12/17/96 | 12/28/96 | 12/30/96 |
| 028MTM | 12/17/96 | 12/28/96 | 12/30/96 |
| MJM8S1 | 12/18/96 | 12/28/96 | 12/30/96 |
| MJM882 . | 12/18/96 | 12/28/96 | 12/30/96 |
| E38MLM | 12/18/96 | 12/28/96 | 12/30/96 |
| MJM884 | 12/18/96 | 12/28/96 | - 12/30/96. |
| EBBMUM | 12/18/96 | 12/28/96 | 12/30/96 |
| 388MUM | 12/18/96 | 12/28/96 | 12/30/96 |
| SSSMUM | 12/18/96 | 12/28/96 | 12/30/96 |
| 288MUM | 12/18/96 | 12/28/96 | 12/30/96 |
| 0 | 12/18/96 | 12/28/96 | 12/30/96 |
| MJM891 | 12/18/96 | 12/28/96 | 12/30/96 |
| MJM892 | 12/18/96 | 12/28/96 | 12/30/96 |
| Kesmum | 12/18/96 | 12/28/96 | 12/30/96 |
| | | | |

2.0 INSTRUMENT CALIBRATION/VERIFICATION - Acceptable

For ICP-AES analysis, instrument calibration was performed with a blank and single calibration standard for each element. Recoveries for calibration verification standards were 95-107% which met the frequency (10%) and recovery (90-110%) requirements. CRDL standards were analyzed at the required frequency (5%) and concentrations.

For mercury analysis, the instrument was calibrated with a blank and five standards with a resulting correlation coefficient 0.999 (criterion: \geq 0.995). Recoveries for verification standards (93-101%) met the frequency (10%) and recovery (80-120%) criteria. A CRDL standard was analyzed at the required 0.2 ppb concentration.

3.0 ICP-AES INTERFERENCE CHECK SAMPLE (ICS) - Acceptable

Percent recoveries for the ICS (91-112%) met the 80-120% recovery criterion and the 5% frequency requirements for analysis. No interferences are suspected based upon ICS performance and indigenous element concentrations.

4.0 LABORATORY CONTROL SAMPLES (LCS) - Acceptable

All metals results for the LCS were within the established control limits for soils.

5.0 BLANKS - Acceptable

Results for all blanks were non-detected or below a factor of 5 times that found in associated samples.

6.0 MATRIX SPIKE ANALYSIS

Percent recoveries for matrix spike samples (85-107%) met the recovery criterion (75-125%) except for antimony (67%), lead (67%) and mercury (145%). Because mercury was not detected in all samples, mercury results were not qualified. Lead and antimony results were qualified as "J" or "UJ". Reported values for lead and antimony may be biased low. The indigenous manganese concentration in the spiked sample (MJM879) was approximately 4 times the concentration of the spike level added. As a result, the manganese spike recovery was not be evaluated.

7.0 DUPLICATE SAMPLE ANALYSIS - Acceptable

Sample duplicate relative percent differences (RPD) were in the range of 0-15%. The required criteria are \pm 35% (or \pm 2X CRDL).

8.0 ICP-AES SERIAL DILUTION - Acceptable

Results for the five-fold serial dilution were within 2% difference which met the \pm 10% difference criterion.

9.0 ASSESSMENT SUMMARY

The following is a summary of the qualified data: The (J) or (UJ) qualifier was applied to all antimony and lead results due to a low recovery for the matrix spike sample. As a result, reported antimony and lead values may be biased low.

DATA QUALIFIERS

- U The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit.
- J The associated value is an estimated quantity.
- R The data are unusable. (Note: Analyte may or may not be present.)
- UJ The material was analyzed for, but was not detected. The associated value is an estimate and may be inaccurate or imprecise.

| yab Name: SOUTHWEST_LABOR | LATORY | Contract: 6 | 8-D5-0137 | MJM879 |
|-----------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|------------|---------------------------------------------|
| sab Code: SWOK Ca | _ | • | | SDG No.: MJM879 |
| <pre>latrix (soil/water): SOII</pre> | '_ | | Lab Sampl | e ID: 28060.21 |
| evel (low/med): LOW_ | _ | · , · · · · · · · · · · · · · · · · · | Date Rece | ived: <u>12/21/96</u> |
| Solids: _87. | 6 | • | | |
| Concentration | Units (ug | /L or mg/kg dr | y weight): | MG/KG . |
| 7440-50-8 7439-89-6 7439-92-1 7439-95-4 7439-96-5 7439-97-6 7440-02-0 | Analyte Aluminum Antimony Arsenic Barium Beryllium Cadmium Calcium Chromium Cobalt Copper Iron Lead Magnesium Manganese Mercury Nickel Potassium Selenium Silver Sodium Thallium Vanadium Zinc Cyanide | 11.4 16800 10.3 4010 400 0.11 35.7 321 0.91 | | 4 P. D. |

| 7101 | perore. | DROWN | Clarity | perore: | | iexture: | יוט בטבויו |
|------|---------|-------------|---------|---------|-------------|------------|------------|
| olor | After: | AETTOM | Clarity | After: | | Artifacts: | |
| emmo | nts: | | | | | | |
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| | | | | | | | • |

EPA SAMPLE NO.

| | | INORGANIC | ANALYSES DATA | SHEET | , | |
|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|-------------|-------------|---------------|
| ib Name: SOU | THWEST_LABOR | ATORY | Contract: 6 | 8-D5-0131 | MJM88 | 0 |
| ib Code: SWO | K Ca | se No.: 25 | 253_ SAS No. | : | SDG No.: | MJM879 |
| atrix (soil/ | water): SOIL | | | Lab Samp | ole ID: 280 | 60.22 |
| evel (low/med | d): LOW_ | _ | | Date Rec | ceived: 12/ | 21/96 |
| Solids: | _89. | 1 | | | | |
| Co | oncentration | Units (ug | /L or mg/kg dry | y weight) | : MG/KG | |
| | CAS No. | Analyte | Concentration | C Q | M | |
| | 7440-38-2 7440-39-3 7440-41-7 7440-43-9 7440-47-3 7440-48-4 7440-50-8 7439-89-6 7439-95-4 7439-95-4 7439-96-5 7439-97-6 7440-02-0 7440-02-0 7440-23-5 7440-28-0 | Antimony Arsenic Barium Beryllium Cadmium Calcium Chromium Cobalt Copper Iron Lead Magnesium Manganese Mercury Nickel Potassium Selenium Silver Sodium | 13.700 | U | | /47 |
| or Before: | BROWN | Clarit | y Before: | | Texture: | MEDIUM |
| or After: | YELLOW | Clarit | y After: | | Artifacts: | : |
| ments: | | | • | | • | |
| | | | | | | |
| | | | | | | |

| | | | | | 1 | | , |
|----------------|---------------------------------------------------------------|------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|-------|-----------|--------|
| Lab Name: SOU | THWEST LABOR | LATORY | Contract: 6 | 8-D5-01 | 37 | MJM881 | |
| | | . — | 253_ SAS No. | | • | SDG No.: | MJM879 |
| Matrix (soil/ | | | | | _ | ID: 2806 | |
| Level (low/med | d): LOW_ | | | Date R | ecei | ved: 12/2 | 1/96 |
| ያ Solids: | _88. | | • • • • • • • • • • • • • • • • • • • • | • | | | |
| Co | oncentration | Units (ug | /L or mg/kg dry | y weigh | t): N | MG/KG | |
| | CAS No. | Analyte | Concentration | C Q | М | | |
| | 7439-97-6 7440-02-0 7440-09-7 7782-49-2 7440-22-4 | Antimony_ Arsenic_ Barium_ Beryllium Cadmium_ Calcium_ Chromium_ | 15600 0.68 3.7 69.6 0.27 0.23 2730 47.5 7.8 13.3 15800 6.3 4670 236 0.11 44.2 403 0.91 0.23 343 0.60 40.0 36.4 | | | 1/10/ | 97 |
| olor Before: | BROWN | Clarit | y Before: | | Te | xture: | MEDIUM |
| olor After: | YELLOW | Clarit | y After: | · | Ar | tifacts: | |
| omments: | | - | | | | | |

| עסד | SAMPLE | NTO |
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| | orune de | 110 |

| ab Name: SOU | THWEST LABOR | CATORY | Contract: 6 | 58-D5-0137 | MJM882 |
|---------------|-------------------------------------|------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-----------------|
| | - | | | * | SDG No.: MJM879 |
| atrix (soil/ | water): SOII | _ | | Lab Samp | le ID: 28060.24 |
| evel (low/me | g): FOM_ | | | Date Rec | eived: 12/21/96 |
| Solids: | _78. | [2 | | | |
| C | oncentration | Units (ug, | /L or mg/kg dr | y weight) | : MG/KG |
| | CAS No. | Analyte | Concentration | C Q | М |
| | 7782-49-2 7440-22-4 7440-23-5 | Antimony_ Arsenic_ Barium_ Beryllium Cadmium_ Calcium_ Chromium_ | 21900 0.77 3.5 61.7 0.34 0.26 2990 32.9 8.7 13.6 15500 4.4 4430 184 0.13 44.8 397 1.0 0.26 335 0.51 48.6 28.0 | | |
| lor Before: | BROWN | Clarit | y Before: | . | Texture: MEDIUM |
| lor After: | YELLOW | Clarit | y After: | | Artifacts: |
| nments: | | | | | |
| , | | | | | |

FORM I - IN

| Lab Name: SOU | THWEST LABOR | ATORY | Contract: 6 | 8-D5 - 0137 | | JM883 |
|----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|--------------|
| Lab Code: SWO: Matrix (soil/v | | | 253_ SAS No. | • | | No.: MJM879. |
| Level (low/med % Solids: | • | - | | - | | 12/21/96 |
| | | | /L or mg/kg dr | y weight) | . MG/KG | ; |
| | 7440-36-0 7440-38-2 7440-39-3 7440-41-7 7440-43-9 7440-47-3 7440-48-4 7440-50-8 7439-89-6 7439-95-4 7439-96-5 7439-96-5 7439-96-5 7440-02-0 7440-02-0 7440-22-4 7440-23-5 | Aluminum_ Antimony_ Arsenic_ Barium_ Beryllium Cadmium_ Calcium_ Chromium_ Cobalt_ Copper_ Iron_ Lead_ Magnesium Manganese Mercury_ Nickel_ | Concentration | U ** UJ B C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K C K | א היסיסיסיסיסיסיסיסיסיסיסיסיסיסיסיסיסיסיס | 1/10/97 |
| olor Before: | BROWN | Clarit | y Before: | | Textur | e: MEDIUM |
| olor After: | YELLOW | Clarit | y After: | | Artifa | cts: |
| | | | | | | |

EPA SAMPLE NO.

| lah Nama, COITT | TIPOT I ADOD | A TO D V | Contract | -0 DE 013 | 88MLM | 4 |
|-----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|-----------|-------------|--------|
| Lab Name: SOUTI Lab Code: SWOK | - | | | | | MJM879 |
| - Matrix (soil/wa | | | | | ole ID: 280 | |
| Level (low/med) | : LOW_ | | | Date Rec | ceived: 12/ | 21/96 |
| s Solias: | _90. | 3 | | | | |
| Cor | centration | Units (ug | /L or mg/kg dr | y weight) | : MG/KG | |
| | CAS No. | Analyte | Concentration | C Q | М | |
| | 7440-36-0 7440-38-2 7440-39-3 7440-43-9 7440-43-9 7440-47-3 7440-48-4 7440-50-8 7439-95-4 7439-95-4 7439-95-5 7439-96-5 7440-09-7 7782-49-2 7440-23-5 7440-28-0 7440-66-6 | Cadmium_Calcium_Chromium_Cobalt_Copper_Iron_Lead_Magnesium Manganese Mercury_Nickel_Potassium Selenium_Silver_ | 15500 0.66 2.4 50.2 0.23 0.22 2350 23.3 10.5 20.4 17600 1.9 5900 235 0.11 107 360 0.89 0.22 297 0.64 43:0 24.6 | | | »/A7 |
| olor Before: 1 | BROWN | Clarit | y Before: | | Texture: | MEDIUM |
| lor After: | YELLOW | Clarit | y After: | | Artifacts: | |
| mments: | | · | | | | |

FORM I - IN

| ab Name: SOUT | THWEST_LABOR | RATORY | Contract: 6 | 8-D5-013 | 37 | MJM885 |
|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|---------------------------------------------|---------------------|---------------------|
| ab Code: SWOR | Ca | ese No.: 25 | 253_ SAS No. | : | - | SDG No.: MJM879 |
| atrix (soil/w | ater): SOII | _ | | Lab Sam | ple | ID: 28060.27 |
| evel (low/med | LOW_ | | | Date Re | cei | ved: 12/21/96 |
| Solids: | _88. | 8 | · | | | |
| Со | ncentration | Units (ug | /L or mg/kg dr | y weight |): 1 | MG/KG |
| | CAS No. | Analyte | Concentration | C Q | М | |
| | 7440-36-0 7440-38-2 7440-39-3 7440-41-7 7440-43-9 7440-47-3 7440-48-4 7440-50-8 7439-89-6 7439-95-4 7439-95-4 7439-95-5 7439-97-6 7440-02-0 7440-09-7 | Aluminum_ Antimony_ Arsenic_ Barium_ Beryllium Cadmium_ Calcium_ Chromium Cobalt_ Copper_ Iron Lead Magnesium Manganese Mercury_ Nickel_ Potassium Selenium_ Silver_ Sodium_ Thallium_ Vanadium_ Zinc_ Cyanide_ | 0.23 5420 29.0 7.9 9.9 15100 4.3 4130 283 0.11 37.1 | で 深 山 で で で で で で で で で | | 1/10/97 |
| olor Before: | BROWN | Clarit | y Before: | I | ¹ Te | .ı xture: MEDIUM |
| olor After: | YELLOW | Clarit | y After: | | Ar | tifacts: |
| mments: | | | | | • | |

| EPA SAMPLE N |
|--------------|
|--------------|

| ab Name: SOUT | THWEST_LABOR | LATORY | Contract: 6 | 8 - I | D5-0137 | | JM886 | 5 |
|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|-----------------|---------------------------------|----------------------|-----------|----------|--------|
| ab Code: SWO | Ca | use No.: 25 | 253_ SAS No. | : _ | · | SDG | No.: | MJM879 |
| atrix (soil/w | vater): SOIL | <u>. </u> | | Lā | ab Samp | le ID: | 2806 | 50.28 |
| evel (low/med | l): LOW_ | | | Dā | ate Rec | eived: | 12/2 | 21/96 |
| Solids: | _88. | 9 | | | | | | |
| Cc | CAS No. | Units (ug | /L or mg/kg dry | - | veight) ———— Q | : MG/K | G | |
| | 7429-90-5 7440-36-0 7440-38-2 7440-39-3 7440-41-7 7440-43-9 7440-47-3 7440-48-4 7440-50-8 7439-95-4 7439-95-4 7439-95-5 7439-97-6 7440-09-7 7782-49-2 7440-23-5 7440-28-0 7440-62-2 | | 14900 | स्तत्रा ता । । । सा । तम् भता । | W J | <u>p.</u> | AM VI | 0/97 |
| .or Before: | BROWN | Clarit | y Before: | | | Textur | e: | MEDIUM |
| .or After: | YELLOW | Clarit | y After: | | | Artifa | .cts: | |
| ments: | | | | | | | | |
| | | | | | | | | |

| Lab Name: SOUT | HWEST_LABOR | ATORY | Contract: 6 | 8-D5-0137 | 888MLM |
|-----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|-----------|------------------|
| Lab Code: SWOK | Ca | se No.: 25 | 253_ SAS No. | : | SDG No.: MJM879 |
| Matrix (soil/wa | ater): SOIL | | | Lab Samp | ole ID: 28060.30 |
| Level (low/med) | LOW_ | . | | Date Rec | eived: 12/21/96 |
| % Solids: | _85. | <u>ı</u> . | · | | |
| Cor | ncentration | Units (ug, | /L or mg/kg dry | y weight) | : MG/KG |
| | 7429-90-5 7440-36-0 7440-38-2 7440-39-3 7440-41-7 7440-43-9 7440-47-3 7440-48-4 7440-50-8 7439-95-4 7439-95-4 7439-95-5 7439-97-6 7440-02-0 7440-02-0 7440-23-5 7440-28-0 | Analyte Aluminum Antimony Arsenic Barium Beryllium Cadmium Calcium Chromium Cobalt Copper Iron Lead Magnesium Manganese Mercury Nickel Potassium Selenium Silver Sodium Thallium Vanadium Zinc Cyanide | 3190 24.6 7.9 13.4 15200 17.4 4340 227 0.12 36.6 446 0.94 0.24 | | M |

| plor Before: | BROWN | Clarity Before: | Texture: MEDIL |
|--------------|--------|-----------------|----------------|
| olor After: | YELLOW | Clarity After: | Artifacts: |
| omments: | | | |
| | | | <u> </u> |
| | | | |
| | | | |

| THE DEMINE INC | EPA | SAMPLE | NO |
|----------------|-----|--------|----|
|----------------|-----|--------|----|

| ab Name: SOU | THWEST_LABOR | RATORY | Contract: 6 | 8-D5-0137 | MJM889 |
|---------------|------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|------------|-----------------|
| ab Code: SWO | K Ca | ase No.: 25 | 253_ SAS No. | : | SDG No.: MJM879 |
| atrix (soil/ | water): SOII | ı | • | Lab Sampl | e ID: 28060.31 |
| evel (low/med | d): LOW_ | <u> </u> | | Date Rece | eived: 12/21/96 |
| Solids: | _84. | 4 | | | |
| Co | oncentration | Units (ug | /L or mg/kg dr | y weight): | MG/KG |
| | CAS No. | Analyte | Concentration | C Q | м |
| | 7.440-43-9 7440-70-2 7440-47-3 7440-48-4 7440-50-8 7439-89-6 7439-95-4 7439-95-5 7439-97-6 7440-02-0 7440-09-7 7782-49-2 7440-22-4 | Aluminum_ Antimony_ Arsenic_ Barium_ Beryllium Cadmium_ Calcium_ Chromium_ Cobalt_ Copper_ Iron_ Lead_ Magnesium Manganese Mercury_ Nickel_ Potassium Selenium_ Silver_ Sodium_ Thallium Vanadium_ Zinc_ Cyanide_ | 14700 | | |
| lor Before: | BROWN | Clarit | y Before: | | Texture: MEDIUM |
| lor After: | YELLOW | Clarit | y After: | | Artifacts: |
| nments: | | | | | |
| | | | | | |

FORM I - IN

013 EPA SAMPLE NO.

1 INORGANIC ANALYSES DATA SHEET

| | • | 0.68MTW |
|--------------------------------|----------------------|---------|
| Lab Name: SOUTHWEST_LABORATORY | Contract: 68-D5-0137 | |

Lab Code: SWOK___ Case No.: 25253_ SAS No.: ____ SDG No.: MJM879

Matrix (soil/water): SOIL_ Lab Sample ID: 28060.32

Level (low/med): LOW_____ Date Received: 12/21/96-----

% Solids: _90.6

Concentration Units (ug/L or mg/kg dry weight): MG/KG

| CAS No. | Analyte | Concentration | С | Q | М | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|--------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|---------|
| 7429-90-5 7440-36-0 7440-38-2 7440-41-7 7440-43-9 7440-47-3 7440-47-3 7440-48-4 7440-50-8 7439-95-4 7439-95-4 7439-96-5 7439-97-6 7440-02-0 7440-02-0 7440-23-5 7440-28-0 7440-28-0 7440-62-2 7440-66-6 | Aluminum Antimony Arsenic Barium Beryllium Cadmium Calcium Chromium Cobalt Copper Iron Lead Magnesium Manganese Mercury Nickel Potassium Selenium Silver Sodium Thallium Vanadium Zinc Cyanide | 12100 | ।।। क्षेत्रविष्य वा।।। ष्या तवा। वा। | \(\frac{1}{x} \) \(\fra | | 1/10/97 |

| olor Before: | BROWN | Clarity Before: | Texture: MEDIUM |
|--------------|--------|-----------------|-----------------|
| olor After: | YELLOW | Clarity After: | Artifacts: |
| omments: | | | |
| | | | |
| | | | |
| | | | |

| EPA | SAMPLE | NO. |
|-----|--------|-----|
| | | |

| Cas No. | ab Name: SOU | JTHWEST LABOR | RATORY | Contract: 6 | 8-D5-0137 | MJM891 |
|--------------------------------------------------|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|----------------------------------------|
| Date Received: 12/21/96 Solids: | | . — | - | | | |
| Cas No. | atrix (soil/ | water): SOII | J | | Lab Samp | le ID: 28060.33 |
| Cas No. | evel (low/me | ed): LOW_ | | | Date Rec | eived: 12/21/96 |
| CAS No. Analyte Concentration C Q M 7429-90-5 | Solids: | _82. | 2 | · | | · |
| T429-90-5 | C | Concentration | Units (ug | /L or mg/kg dr | y weight) | : MG/KG |
| 7440-43-9 | | 7429-90-5 7440-36-0 | Aluminum_ Antimony_ | 16400 0.73 | U + UJ | |
| Lor After: YELLOW Clarity After: Artifacts: | | 7440-39-3 7440-41-7 7440-43-9 7440-47-3 7440-48-4 7440-50-8 7439-89-6 7439-92-1 7439-95-4 7439-96-5 7439-96-5 7439-97-6 7440-02-0 7440-09-7 7782-49-2 7440-23-5 7440-28-0 7440-62-2 | Barium Beryllium Cadmium Calcium Chromium Cobalt Copper Iron Lead Magnesium Manganese Mercury Nickel Potassium Selenium Silver Sodium Thallium Vanadium Zinc | 2.4 58.0 0.28 0.24 2880 25.8 7.5 10.3 14800 2.5 4080 223 0.12 41.8 364 0.97 0.24 316 0.49 41.4 | A D D D D D D D D D | 47 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 |
| | lor Before: | BROWN | Clarit | y Before: | | Texture: MEDIUM |
| nments: | lor After: | YELLOW | Clarit | y After: | | Artifacts: |
| | nments: | | | | | |
| | | | | | | · · · · · · · · · · · · · · · · · · · |

FORM I - IN

| Jab Name: SOU | THWEST LABOR | RATORY | Contract: 6 | 8-D5 - 0137 | MJM892 |
|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|--------------------|------------------|
| | | | | | SDG No.: MJM87 |
| Matrix (soil/ | water): SOII | | | Lab Samp | ole ID: 28060.34 |
| evel (low/med | i):LOW | · | | Date Rec | ceived: 12/21/96 |
| Solids: | 91. | | | | · · |
| | _ | • | /L or mg/kg dr | y weight) | : MG/KG |
| | CAS No. | Analyte | Concentration | C Q | M |
| | 7440-38-2 7440-39-3 7440-41-7 7440-43-9 7440-47-3 7440-48-4 7440-50-8 7439-89-6 7439-92-1 7439-95-4 7439-96-5 7439-97-6 7440-02-0 7440-09-7 7782-49-2 7440-22-4 | Antimony_Arsenic_Barium_Beryllium Cadmium_Calcium_Chromium_Cobalt Copper_Iron_Lead_Magnesium Manganese Mercury_Nickel_Potassium_Selenium_Silver_Sodium_Thallium_Narsenium_Thallium_Narsenium_Sodium_Thallium_Narsenium_Sodium_Thallium_Narsenium_Sodium_Thallium_Narsenium_Sodium_Thallium_Narsenium_Sodium_Thallium_Narsenium_Sodium_Thallium_Narsenium_Sodium_Thallium_Narsenium_Sodium_Thallium_Narsenium_Sodium_Thallium_Narsenium_Sodium_Thallium_Narsenium_Sodium_Thallium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_Narsenium_N | 10100 0.66 1.8 30.4 0.22 0.22 2570 20.4 6.1 10.4 12900 1.6 4320 176 0.11 36.1 336 0.87 0.22 274 0.67 32.5 19.5 | で | |
| olor Before: | BROWN | Clarit | y Before: | | Texture: MEDIU |
| olor After: | YELLOW. | Clarit | y After: | | Artifacts: |
| omments: | | | | | · · · |
| | | | | | |

| 7777 | 031/077 | 370 |
|------|---------|-----|
| EPA | SAMPLE | NO |

| | THWEST LABOR | RATORY | Contract: 6 | 8-D5-0137 | MJM8.93 |
|---------------|------------------------|-----------------------|----------------|---------------|------------------------------------------|
| | - , | | • | | SDG No.: MJM879 |
| atrix (soil/ | vater): SOII | J | | Lab Samp | le ID: 28060.35 |
| evel (low/med | i): LOW_ | | | Date Rec | eived: 12/21/96 |
| Solids: | _89. | 2 | | | • |
| Co | oncentration | Units (ug | /L or mg/kg dr | y weight) | : MG/KG |
| , | 1 | T | T | T-T | <u> </u> |
| | CAS No. | Analyte | Concentration | C Q | М |
| | 1 | Aluminum_ | 12600 | | <u>P</u> |
| | 7440-36-0 7440-38-2 | Antimony_ | 0.67 | | D |
| , | 7440-38-2 | Arsenic Barium | 2.1 | | p |
| | 7440-41-7 | Beryllium | 0.22 | | p · |
| | | Cadmium | 0.22 | | P |
| | 7440-70-2 | Calcium | 2500 | | P |
| | 7440-47-3 | Chromium_ | 25.8 | | p |
| | 7440-48-4 | Cobalt | 7.9 | B | P |
| | 7440-50-8 | Copper | 12.1 | | P /10/47 |
| | 7439-89-6 | Iron | 14400 | | P_ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ |
| | 7439-92-1 | Lead | 1.9 | I | p |
| | | Magnesium | 4890 | | <u>P</u> |
| | | Manganese | 188 | | p |
| | 7439-97-6 | Mercury | | | C∆ . |
| | 1 | Nickel | 41.2 | 1 | P P |
| | | Potassium Selenium | 0.90 | | P P |
| | | Silver | 0.22 | 77 | D . |
| | 7440-23-5 | Sodium | 314 | # | D-1. |
| • | 7440-28-0 | Thallium | 0.57 | B | p p p |
| | 7440-62-2 | | 36.2 | | p- |
| | 7440-66-6 | Zinc | 21.8 | | P_ NR |
| | | Cyanide | | | NR |
| lor Before: | BROWN | Clarit | y Before: | | —' Texture: MEDIUM |
| lor After: | YELLOW | | y After: | | Artifacts: |
| | | | - | | |
| ments: | | | | | |
| | | | | | : |
| | | | | | · |

FORM I - IN



ecology and environment, inc.

International Specialists in the Environment

1500 First Interstate Center, 999 Third Avenue Seattle, Washington, 98104 Tel: (206) 624-9537, Fax: (206) 621-9832 MEMORANDUM

DATE:

February 6, 1997

TO:

Mike Martin, START Project Manager, E & E, Seattle, WA

FROM:

Mark Woodke, START-Chemist, E & E, Seattle, WA

SUBJ:

Full Organic Data Quality Assurance Review, Former Nike Missile Site,

Poulsbo, WA

REF:

TDD: 96-11-0007

PAN: AK-07-01-SI-DM

The data quality assurance review of 14 soil samples collected from the Former Nike Missile site in Poulsbo, Washington, has been completed. Full Organic analyses were performed by Compuchem Environmental Corporation, Research Triangle Park, NC.

The following change was made to the original data validation report:

The "P" flags, indicating a greater than 25 % difference between individual pesticide results on the two gas chromatograph columns, were deleted from results for sample JM203. All other "P" flags had been previously deleted by the original reviewer. In all cases, the lower of the two concentrations were reported.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION 10

1200 Sixth Avenue Seattle, Washington 98101

Reply To

Atth Of:

OEA-095

January 27, 1997

MEMORANDUM

Subject: Data Validation Report for Full Organic Analysis

(Volatile Organics, Semi-Volatile Organics, Pesticides and Polychlorinated Biphenyls) of Samples from the Nike

Missile Test Launch Site Case: 25253

SDG: JM199

From:

Ginna Grepo-Grove Chemist

Quality Assurance & Data Unit, OEA

To:

Mark Ader, Site Manager

Office of Environmental Cleanup

The quality assurance (QA) review of 14 soil samples collected from the above referenced site has been completed. These sample were analyzed for volatile organics (VOAs), semi-volatile organics (BNAs), pesticides and polychlorinated biphenyls (Pest/PCBs) in accordance with the USEPA Contract Laboratory Program (CLP) Statement of Work (SOW) for Organic Analyses (OLMO3.1) by Compuchem Environmental Corp., Research Triangle Park, NC. The following samples were reviewed in this report:

| JM169 | JM179 | JM199 |
|-------|-------|---------|
| JM200 | JM201 | JM202 |
| JM203 | JN204 | JM205 |
| JM206 | JM207 | . JM208 |
| JM209 | JN210 | |

DATA OUALIFICATIONS

The following comments refer to the laboratory performance in meeting the Quality Control Specifications outlined in the USEPA CLP SOW for Organic Analysis (OLMO3.1), and the USEPA CLP National Functional Guidelines for Organic Data Review (2/94).

The conclusions presented herein are based on the information provided for the review.

Holding Time - Acceptable

The soil samples were preserved with ice prior to shipment. All of the samples met the method and technical (40 CFR 136 water criteria) required holding times for all analyses. The Holding Times Summary listing the pertinent collection, extraction and analysis dates is attached at the end of this validation report.

Instrument Performance - Acceptable

A total of one GC and two GC/MS systems were used in all of the analyses (1 GC/MS for VOA, 1 GC/MS for BNAs and 1 GC/ECDs for pest/PCBs). All of the systems met the SOW specified technical acceptance criteria prior to sample analyses i.e, tuning and GC/MS performance checks, resolution checks, retention time, response factors and calibrations. The systems remained stable throughout the course of analyses. Instrument blanks were all clean and there were no indications of carry-over.

Initial Calibrations

Four initial calibrations performed for VOAs, ABNs and pest/PCB analyses were evaluated. All of the initial calibrations performed met the SOW technical acceptance criteria with the exception of the following:

| Date of Analysis | Fraction | Compound | %RSD | Associated Samples | Qualifier Detects/Non-Detects |
|---------------------|----------|------------------------|--------|-----------------------|----------------------------------|
| 12/19/96 | VOA | chloromethane | 37.0 | All samples | J/None |
| | | vinyl chloride | 32.6 | All samples | J/None |
| | | acelone | 607 | All Samples | . J/UJ |
| 12/28/93 | BNA | 2,4-dinitrophenol | 33.7 | All samples | UJ/None |
| | | ≟ nitroaniline | _ 42.3 | All samples | UJ/None |
| | | 3,3'-dichlorobenzidine | 44.4 | All samples | UJ/None . |

Both chloromethane and vinyl chloride initial calibration curves were linear up to 50 ppb. Since none of the chloromethane and vinyl chloride were detected at concentrations over 50 ppb, none of the data were qualified. The two low standards for acetone were not linear. Therefore, both the acetone non-detects and detects at concentrations \leq 20 ppb were qualified as estimates, "J/UJ". The lowest standards for 2,4-dinitrophenol, 4-nitroaniline and 3,3'-dichlorobenzidine were not linear. Therefore, the quantitation limits for these three BNA compounds were qualified as estimated, "UJ".

Continuing Calibrations

All of the continuing calibration verification standards (CCVs) met the criteria for frequency of analysis, the minimum response factor, the retention time, the chromatographic resolution, the relative percent difference (RPD) and the percent difference (%D) criteria with the following exceptions (The compounds listed below exceeded the %D criteria):

| Date of Analysis | Fraction | Compound | Associated Samples | Qualifier Detect/Non-Detect |
|---------------------|----------|---------------------------------------------------------|-----------------------------------------------------------|--------------------------------|
| 12/23/96 | VOA | dibromochloromethane, bromoform | JM199, JM200, JM204, JM205, JM206, JM207, JM208, JM209 | J/None |
| ·12/30/96 | BNA | 2,4-dinitrophenol 4-nitroaniline 3,3'-dichlorobenzidine | JM205, JM200 | J/None J/None |

Compound Quantitation and Detection Limits

All of the samples were analyzed at the contract required quantitation limits (CRQLs). All of the reported results were within the calibration linear range and were adjusted for sample amount and percent moisture. Target compounds that were detected at concentrations less than the quantitation limits were qualified as estimated, "J". The detected pesticide and PCBs were quantitated from both columns. The lower pesticide/PCB value were reported. Pesticide/PCB concentrations with %Ds >25% were qualified as estimated, "J".

Blanks

The frequency of analysis of laboratory blanks was met. Background levels for all target compounds in the method blanks were below the CRQLs. Acetone is detected in the method blank VBLKP2 at 5 ug/Kg. Acetone and methylene chloride were also detected in the method and holding blank VBLKP5 and VHBLKP7, respectively. The acetone and methylene chloride detected in the samples at concentrations less than ten times the value in their associated blank(s) were qualified as non-detects, "U". Methoxychlor, 4,4'-DDT and endosulfan sulfate were detected in the pest/PCB method blanks. The detected methoxychlor, 4,4'-DDT and endosulfan sulfate in the samples at concentrations less than five time the concentrations in their associated blank were qualified as non-detects, "U".

Analytical Sequence - Acceptable

All of the standards, blanks, samples and QC samples were analyzed in accordance with the SOW-specified analytical sequence for all three types of organic analyses.

System Monitoring Compounds (SMC)/Surrogates - Acceptable

All of the VOA, ABN and pest/PCB surrogate recoveries met the applicable QC criteria> The VOA SMC recoveries ranged from 80 - 110%; the BNA surrogates ranged from 50 -121% and the pest/PCB surrogates ranged from 36 - 111%.

Matrix Spike/Matrix Spike Duplicate (MS/MSD)

Sample JM209 was analyzed for VOA, BNAs, pest/PCB MS/MSD. The frequency of analysis of MS/MSD was met for all analyses. All of the applicable QC criteria for MS and MSD analyses were met with the exception of the following:

BNA MS/MSD recoveries:

| Compound | MS Recovery (%) | MSD Recovery (%) | QC Limits (%) |
|--------------------|-----------------|------------------|------------------|
| 2,4-dinitrotoluene | 103 | 95 | 28-89 |
| Pentachlorophenol | 139 | 129 | 17-109 |

None of the associated data were qualified on this basis.

Internal Standards - Acceptable

The acceptance criteria for internal standards (IS) are ± 0.5 minutes for retention time shifts and -50% to +100% of the IS area as compared to the IS retention time and area of the continuing calibration standard. All of the GC/MS analyses met the IS area and retention time shift criteria. None of the data were qualified on this basis.

Compound Identification - Acceptable

All of the compounds detected in the GC/MS analyses were within the retention time windows and met the USEPA spectral matching criteria. All of the pest/PCB detected in the samples were within the retention time windows and were detected in both columns. None of the data were qualified on the basis of

compound identification.

Tentatively Identified Compounds

Peaks that were detected in the samples at areas >10% of the internal standards and were not part of the target compound lists were identified as tentatively identified compounds (TICs). TICs that were both found in the sample and the associated method blank(s) were qualified as unusable, "R". Peaks that were identified as common laboratory contaminants, solvent preservatives, column bleed or aldol condensation products were qualified as unusable, "R". The rest of the peaks identified as TICs were qualified "JN", tentatively identified at an estimated concentration.

Laboratory Contact

The laboratory was not contacted for this review.

Overall Assessment

All of the samples were analyzed in accordance with the SOW specifications. Data results, as qualified, are acceptable and can be used for all purposes.

Holding Time Summary - Case 25253 SDG: JM199

| Sample Number | Collection Date | VTSR* | Analysis Date VOA | Extraction Date | Analysis Date BNA | Analysis Date Pest/PCB |
|------------------|--------------------|----------|-------------------------|--------------------|-------------------------|------------------------------|
| JM169 | 12/17/96 | 12/21/96 | 12/26/96 | 12/23/96 | 12/29/96 | 01/02/97 |
| JM179 | 12/18/96 | 12/21/96 | 12/26/96 | 12/23/96 | 12/29/96 | 12/31/96 |
| JM199 | 12/17/96 | 12/21/96 | 12/23/96 | 12/23/96 | 12/29/96 | 12/31/96 |
| JM200 | 12/17/96 | 12/21/96 | 12/23/96 | 12/23/96 | 12/29/96 | 12/31/96 |
| 201!ת | 12/17/96 | 12/21/96 | AN | 12/23/96 | NA | 12/31/96 |
| <i>ক</i> :202 | 12/17/96 | 12/21/96 | ДN | 12/23/96 | NA ' | 12/31/96 |
| 203!ھ | 12/17/96 | 12/21/96 | ДИ | 12/23/96 | NA | 01/02/97 |
| 5M204 | 12/15/95 | 12/21/96 | 12/24/96 | 12/23/96 | 12/30/96 | 12/31/96 |
| JM205 | 12/13/96 | 12/21/96 | 12/24/96 | 12/23/96 | 12/29/96 | 12/31/96 |
| JN1206 | 12/13/96 | 12/21/96 | 12/24/96 | 12/23/96 | 12/29/96 | 12/31/96. |
| 207ات | 12/18/96 | 12/21/96 | 12/24/96 | 12/23/96 | 12/30/96 | 12/31/96 |
| מועד 209 | 12/18/96 | 12/21/96 | 12/24/96 | 12/23/96 | 12/29/96 | 12/31/96 |
| JM209 | 12/18/96 | 12/21/96 | 12/24/96 | 12/23/96 | 12/29/96 | 12/31/96 |
| חובויה. | 12/18/96 | 12/21/96 | 12/26/96 | 12/23/96 | 12/29/96 | 12/31/96 |

^{*}VTSR - Verified Time of Sample Receipt in the Laboratory ** NA - Not Analyzed

DATA QUALIFIERS

- U The analyte was not detected at or above the reported result.
- J The analyte was positively identified. The associated numerical result is an estimate.
- R The data are unusable for all purposes.
- N There is evidence the analyte is present in this sample.
- JN There is evidence that the analyte is present. The associated numerical result is an estimate.
- UJ The analyte was not detected at or above the reported estimated result. The associated numerical value is an estimate of the quantitation limit of the analyte in this sample.

JM169

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM199

Natrix: (soil/water) SOIL

Lab Sample ID: 835370

Sample wt/vol: \cdot 5.0 (g/mL) g

Lab File ID: GH035370B51

Level: (low/med) LOW

Date Received: 12/21/96

*% Moisture: not dec. 14

Date Analyzed: 12/26/96 -----

GC Column: D3624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: ____(uL)

CONCENTRATION UNITS: CAS NO. COMPOUND (ug/L or ug/Kg) ug/Kg Q

| | | |
|-------------------------------------------|-------------|----------|
| 74-87-3Chloromethane | 12 | TI |
| 74-83-9Bromomethane | 12 | |
| 75-01-4Vinyl Chloride | 12 | 1 |
| 75-00-3Chloroethane | 12 | 1 |
| 75-09-2Methylene Chloride | 12 2 | F3 4 |
| * | 14 8 | J3 4 |
| 67-64-1Acetone 75-15-0Carbon Disulfide | 12 8 | U |
| · · · · · · · · · · · · · · · · · · · | 12 | U |
| 75-35-41,1-Dichloroethene | 12 | 1 |
| 75-34-31,1-Dichloroethane | 12 | l . |
| 540-59-01, 2-Dichloroethene (total) | 12 | (|
| 67-56-3Chloroform | 12 | 1 |
| 107-06-21,2-Dichloroethane | 12 | i |
| 78-93-32-Butanone | 12 | (|
| 71-55-61,1,1-Trichloroethane | 12 | 1 |
| 55-23-5Carbon Tetrachloride | 12 | t . |
| 75-27-4Bromodichloromethane | 12 | 1 |
| 73-87-51,2-Dichloropropane | 12 | |
| 10061-01-5cis-1,3-Dichloropropene | 12 | I |
| 79-01-6Trichloroethene | 12 | 1 |
| 124-48-1Dibromochloromethane | 12 | |
| 79-00-51,1,2-Trichloroethane | 12 | 1 |
| 71-43-2Benzene | 12 | - |
| 10061-02-6trans-1,3-Dichloropropene | 12 | |
| 75-25-2Bromoform | 12 | Ū |
| 108-10-14-Methyl-2-Pentanone | 12 | Ū. |
| 591-73-6 | 12 | U |
| 127-18-4Tetrachloroethene | 12 | U |
| 79-34-51,1,2,2-Tetrachloroethane | 12 | U |
| 108-88-3Toluene | 12 | U |
| 108-90-7Chlorobenzene | . 12 | |
| 100-41-4Ethylbenzene | 12 | |
| 100-42-5Styrene | 12 | 1 |
| 1330-20-7Xvlene (Total) | 12 | ι - |
| |] |] |

1E VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

| TENTATIVELY | IDENTIFIED CO | MPOUNDS | | | |
|-------------------|---------------|------------|-------|-------|--|
| | | | | JM169 | |
| OMPUCHEM ENV. COR | P. Conti | ract: 68D9 | 50009 | | |

Lab Name: COMPUCHEM EN

Lab Code: COMPU Case No.: 25253 SAS No.:

SDG No.: JM199

Matrix: (soil/water) SOIL

Number TICs found: 3

Lab Sample ID: 835370

Sample wt/vol: 5.0 (g/mL) g

Lab File ID: GH035370B51

Level: (low/med) LOW

Date Received: 12/21/96

% Moisture: not dec. 14

Date Analyzed: 12/26/96

GC Column: DB624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) ug/Kg

| 1 | | 1 | | , , |
|------------|------------------------|-----------------|-----------------------------------------|----------------|
| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
| | | ======= | ======================================= | 1 1 |
| 1. | CO2 (NOT IN TIC TOTAL) | 0.02 | 10 | ਹਿਸ਼ 🗸 |
| 2. | LABORATORY ARTIFACT | 16.51 | 40 | JR |
| 3 | I ABORATORY ARTIFACT | 19 19 | 85 | J a |
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FORM I VOA-TIC

recycled paper recycled paper OLMO3.0

JM179

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM199

Matrix: (soil/water) SOIL Lab Sample ID: 835371

Lab File ID: GH035371B51 Sample wt/vol: 5.0 (g/mL) g

Level: (low/med) LOW Date Received: 12/21/96

% Moisture: not dec. 8 Date Analyzed: 12/26/96

GC Column: DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Aliquot Volume: (uL) Soil Extract Volume: (uL)

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/Kg

EPA SAMPLE NO.

| COME CONT | <i>-</i> | JM179 |
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| ntract: | 68D50009 | 011279 |

Lab Name: COMPUCHEM ENV. CORP.

Lab Code: COMPU Case No.: 25253 SAS No.:

SDG No.: JM199

Matrix: (soil/water) SOIL

Lab Sample ID: 835371

Sample wt/vol: 5.0 (g/mL) g

Lab File ID: GH035371B51

Level: (low/med) LOW

Date Received: 12/21/96

% Moisture: not dec. 8

Date Analyzed: 12/26/96

Number TICs found: 1

GC Column: DB624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Aliquot Volume: (uL)

Soil Extract Volume: (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) ug/Kg

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|-----------------------------------------|-----------------------|------------------|--------------|--------|
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| 1. G | O2 (NOT IN TIC TOTAL) | 0.86 | | TUES T |
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FORM I VOA-TIC

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EPA SAMPLE NO.

JM199

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.:

SDG No.: JM199

Matrix: (soil/water) SOIL

Lab Sample ID: 835285

Sample wt/vol: 5.0 (g/mL) g

Lab File ID: GH035285B51

Level: (low/med) LOW

Date Received: 12/21/96

% Moisture: not dec. 14

Date Analyzed: 12/23/96---

GC Column: DB624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: ____(uL)

Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO. COMPOUND

(ug/L or ug/Kg) ug/Kg Q

| 74-S7-3Chloromethane | 12 U |
|-------------------------------------|----------|
| 74-83-9Bromomethane | 12 U |
| 75-01-4Vinyl Chloride | 12 U |
| 75-00-3Chloroethane | 12 U ,, |
| 75-09-2Methylene Chloride | 12 x x 4 |
| 67-64-1Acetone | / 12 U |
| 75-15-0Carbon Disulfide | 12 U |
| 75-35-41,1-Dichloroethene | 12 U |
| 75-34-31,1-Dichloroethane | 12 U |
| 540-59-01, 2-Dichlorosthene (total) | 12 U |
| 67-66-3Chloroform | 12 U |
| 107-06-21, 2-Dichloroethane | 12 U |
| 78-93-32-Butanone | 12 U |
| 71-55-61,1,1-Trichloroethane | 12 U |
| 55-23-5Carbon Tetrachloride | 12 U |
| 75-27-4Bromodichloromethane | 12 U |
| 78-87-51,2-Dichloropropane | 12 U |
| 10061-01-5cis-1,3-Dichloropropene | 12 U |
| 79-01-6Trichloroethene | 12 U |
| 124-48-1Dibromochloromethane | 12 U |
| 79-00-51,1,2-Trichloroethane | 12 U |
| 71-43-2Benzene | 12 U |
| 10061-02-6trans-1,3-Dichloropropene | 12 U |
| 75-25-2Bromoform | 12 U. |
| 108-10-14-Methyl-2-Pentanone | 12 U |
| 591-78-62-Hexanone | 12 U |
| 127-18-4Tetrachloroethene | 12 U |
| 79-34-51,1,2,2-Tetrachloroethane | 12 U |
| 108-88-3Toluene | 12 U |
| 108-90-7Chlorobenzene | 12 บ |
| 100-41-4Ethylbenzene | 12 U |
| 100-42-5Styrene | 12 U |
| 1330-20-7Xylene (Total) | 12 U |
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EPA SAMPLE NO.

| | | | JM199 |
|----------------|------------------|--------------------|-------|
| Lab Name: COMP | UCHEM ENV. CORP. | Contract: 68D50009 | |

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM199

Matrix: (soil/water) SOIL Lab Sample ID: 835285

Sample wt/vol: 5.0 (g/mL) gLab File ID: GH035285B51

Level: (low/med) LOW Date Received: 12/21/96

% Moisture: not dec. 14 Date Analyzed: 12/23/96

GC Column: DB624 ID: 0.53 (mm) • Dilution Factor: 1.0

Soil Aliquot Volume: ____(uL) Soil Extract Volume: (uL)

CONCENTRATION UNITS:

Number TICs found: 3 (ug/L or ug/Kg) ug/Kg

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---------------------------------------|------------------------|-------|---------------|---------------|
| 1. | SO2 (NOT IN TIC TOTAL) | 0.841 | 7:1 | |
| 2. | LABORATORY ARTIFACT | 16.55 | 23 | J R |
| 3. | LABORATORY ARTIFACT | 19.23 | 12 | |
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FORM I VOA-TIC

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

JM200

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

. COMPOUND

CAS NO.

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM199

Matrix: (soil/water) SOIL Lab Sample ID: 835294

Sample wt/vol: 5.0 (q/mL) qLab File ID: GH035294B51

Level: (low/med) LOW Date Received: 12/21/96

% Moisture: not dec. 12 Date Analyzed: 12/23/96-----

GC Column: DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) ug/Kg 74-87-3-----Chloromethane 11 U 74-83-9-----Bromomethane 11 | U 75-01-4-----Vinyl Chloride 11 U 75-00-3-----Chloroethane 11 U 75-09-2-----Methylene Chloride 11 2/2 11 5 JB 4 67-64-1-----Acetone 75-15-0-----Carbon Disulfide 11 | U 75-35-4-----1,1-Dichloroethene 75-34-3-----1,1-Dichloroethane 11 U 540-59-0-----1, 2-Dichloroethene (total) 11 10 67-66-3------Chloroform 11 | U 107-06-2----1, 2-Dichloroethane 11 U 78-93-3----2-Butanone 11 U 71-55-6-----1,1,1-Trichloroethane 11 0 56-23-5-----Carbon Tetrachloride 11 U 75-27-4-----Bromodichloromethane 11 U 78-87-5-----1, 2-Dichloropropane 11 U 10061-01-5----cis-1,3-Dichloropropene 11 | U 79-01-6-----Trichloroethene 11 U 124-48-1-----Dibromochloromethane 11 | U 79-00-5-----1,1,2-Trichloroethane 11 | U 71-43-2----Benzene 11 U 10061-02-6----trans-1,3-Dichloropropene 11 U 75-25-2-----Bromoform 11 0 108-10-1-----4-Methyl-2-Pentanone 11 U 591-78-6----2-Hexanone 11 U 127-18-4-----Tetrachloroethene 11 U 79-34-5-----1,1,2,2-Tetrachloroethane 11 U 108-88-3-----Toluene 11 U 108-90-7-----Chlorobenzene 11 U 100-41-4-----Ethylbenzene 11 U 100-42-5----Styrene 11 U 1330-20-7-----Xvlene (Total) 11 U

EPA SAMPLE NO.

| JM200 |
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Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM199

Matrix: (soil/water) SOIL

Lab Sample ID: 835294

Sample wt/vol: 5.0 (g/mL) g

Lab File ID: GH035294B51

Level: (low/med) LOW

Date Received: 12/21/96

% Moisture: not dec. 12

Date Analyzed: 12/23/96

GC Column:DB624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: ____(uL)

Soil Aliquot Volume: ____(uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

Number TICs found: 3

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|------------|------------------------|--------------------|---------------------------------------|-------------|
| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
| 1. | CO2 (NOT IN TIC TOTAL) | 0.83 | | JB R |
| 2. | I.ABODATORY ARTIFACT | 16.51 | 34 | J R |
| 3. | J.ARORATORY ARTIFACT | 19.20 | | ਹ ਕ |
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

JM204

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM199

Matrix: (soil/water) SOIL

Lab Sample ID: 835298

Sample wt/vol: 5.0 (g/mL) g

Lab File ID: GH035298B51

Level: (low/med) LOW

Date Received: 12/21/96

ያ Moisture: not dec. 14

Date Analyzed: 12/23/96

GC Column: DB624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: ____ (uL)

Soil Aliquot Volume: ____(uL)

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/Kg Q

| | T |
|-------------------------------------|-----------|
| 74-87-3Chloromethane | 12 U |
| 74-83-9Bromomethane | 12 U |
| 75-01-4Vinyl Chloride | 12 0 |
| 75-00-3Chloroethane | 12 U |
| 75-09-2Methylene Chloride | 13 78 4 |
| 67-64-1Acetone | 13 STB- W |
| 75-15-0Carbon Disulfide | 12 0 |
| 75-35-41,1-Dichloroethene | 12 0 |
| 75-34-31,1-Dichloroethane | 12 U |
| 540-59-01,2-Dichloroethene (total) | 12 0 |
| 67-66-3Chloroform | 12 0 |
| 107-06-21,2-Dichloroethane | 12 U |
| 78-93-32-Butanone | 12 U |
| 71-55-61,1,1-Trichloroethane | 12 U |
| 56-23-5Carbon Tetrachloride | 12 U |
| 75-27-4Bromodichloromethane | 12 U |
| 78-87-51,2-Dichloropropane | 12 U |
| 10061-01-5cis-1,3-Dichloropropene | 12 U |
| 79-01-5Trichloroethene | 12 U |
| 124-48-1Dibromochloromethane | 12 U |
| 79-00-51,1,2-Trichloroethane | 12 U |
| 71-43-2Benzene | 12 0 |
| 10061-02-6trans-1,3-Dichloropropene | 12 U |
| 75-25-2Bromoform | 12 U |
| 108-10-14-Methvl-2-Pentanone | 12 U |
| 591-78-62-Hexanone | 12 0 |
| 127-18-4Tetrachloroethene | 12 U |
| 79-34-51,1,2,2-Tetrachloroethane | 12 U |
| 108-88-3Toluene | 12 0 |
| 108-90-7Chlorobenzene | 12 U |
| 100-41-4Ethvlbenzene | 12 U |
| 100-42-5Styrene | 12 U |
| 1330-20-7Xvlene (Total) | 12 U |
| 1000-30-7XYICHG (10Cd1) | . 12 0 |
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EPA SAMPLE NO.

| JM204 |
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Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.:

SDG No.: JM199

Matrix: (soil/water) SOIL

Lab Sample ID: 835298

Sample wt/vol: 5.0 (g/mL) g

Lab File ID: GH035298B51

Level: (low/med) LOW

Date Received: 12/21/96

% Moisture: not dec. 14

Date Analyzed: 12/23/96

GC Column: DB624 ID: 0.53 (mm)

Number TICs found: 3

Dilution Factor: 1.0

Soil Aliquot Volume: ____(uL)

Soil Extract Volume: (úL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) ug/Kg

| CAS NUMBER | COMPOUND NAME | RT. | EST. CONC. | Q |
|---------------------------------------|----------------------------------------|-------------------|-------------|-------------|
| | ====================================== | 1 | 1 | 1 0 |
| 1 | COS (NOT IN TIC TOTAL) | 0.83 | | 35 6 |
| 2. | LARORATORY APTIFACT | 16.52 | 7 | ZR |
| 3. | LAROPATORY ARTIFACT | 19.21 | 16 | Z ò |
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FORM I VOA-TIC

VOLATILE ORGANICS ANALYSIS DATA SHEET

JM205

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM199

Matrix: (soil/water) SOIL

Lab Sample ID: 835299

Sample wt/vol: 5.0 (g/mL) g

Lab File ID: GH035299B51

Level: (low/med) LOW

Date Received: 12/21/96

% Moisture: not dec. 9

Date Analyzed: 12/23/96

GC Column: DB624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: ____(uL)

CONCENTRATION UNITS:

CAS NO. COMPOUND

(ug/L or ug/Kg) ug/Kg Q

| | |
|-------------------------------------|--------------|
| 74-87-3Chloromethane | 11 U |
| 74-83-9Bromomethane | ו טוו |
| 75-01-4Vinvl Chloride | 11 0 |
| 75-00-3Chloroethane | 11 0 |
| 75-09-2Methylene Chloride | 11 7 5 4 |
| 67-64-1Acetone | l 571 T⊃ 1/1 |
| 75-15-0Carbon Disulfide | 1 11 0 |
| 75-35-41,1-Dichloroethene | 11 U |
| 75-34-31,1-Dichloroethane | 11 U |
| 540-59-01,2-Dichloroethene (total) | 11.0 |
| 67-66-3Chloroform | 11 U |
| 107-06-21,2-Dichloroethane | 11 0 |
| 78-93-32-Butanone | 11 0 |
| 71-55-61,1,1-Trichloroethane | 11 0 |
| 56-23-5Carbon Tetrachloride | 11 0 |
| 75-27-4Bromodichloromethane | 11 U |
| 78-87-51,2-Dichloropropane | 11 0 |
| 10061-01-5cis-1,3-Dichloropropene | 11 U |
| 79-01-6Trichloroethene | 11 U |
| 124-48-1Dibromochloromethane | 11 0 |
| 79-00-51,1,2-Trichloroethane | 11 U |
| 71-43-2Benzene | 11 0 |
| 10061-02-6trans-1,3-Dichloropropene | 11 0 |
| 75-25-2Bromoform | 11 0 |
| 108-10-14-Methyl-2-Pentanone | 11 0 |
| 591-78-62-Hexanone | 11 0 |
| 127-18-4Tetrachloroethene | 11 0 |
| 79-34-51,1,2,2-Tetrachloroethane | 11 0 |
| 108-88-3Toluene | 11 U |
| 108-90-7 | 11 U |
| 100-41-4Ethylbehzene | 11 0 |
| 100-41-4Styrene | 11 U |
| 1330-20-7Xvlane (Total) | 11 U |
| 1220-70-1 | |
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| JM205 | |

EPA SAMPLE NO.

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.:

SDG No.: JM199

Matrix: (soil/water) SOIL

Lab Sample ID: 835299

Sample wt/vol: 5.0 (g/mL) g

Lab File ID: GH035299B51

Level: (low/med) LOW

Date Received: 12/21/96

% Moisture: not dec. 9

Date Analyzed: 12/23/96

GC Column: DB624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Aliquot Volume: ____ (uL)

Soil Extract Volume: (uL)

CONCENTRATION UNITS:

Number TICs found: 3

(ug/L or ug/Kg) ug/Kg

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| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
| | | | ======================================= | 1 |
| <u>1</u> . | GOZ (NOT IN TIC TOTAL) | 0.32 | 18 | |
| 2. | LABORATORY ARTIFACT | 16.51 | 5 | J R |
| 3. | LABORATORY ARTIFACT | 19.20 | 14 | 0 p |
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FORM I VOA-TIC

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

JM206

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM199

Matrix: (soil/water) SOIL

Lab Sample ID: 835300

Sample wt/vol: \cdot 5.0 (g/mL) g

Lab File ID: GH035300B51

Level: (low/med) LOW

Date Received: 12/21/96

% Moisture: not dec. 13

Date Analyzed: 12/23/96

GC Column:DB624

CAS NO.

ID: 0.53 (mm)

COMPOUND

Dilution Factor: 1.0

Soil Aliquot Volume: (uL)

Soil Extract Volume:____(uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) ug/Kg

74-87-3-----Chloromethane 11 U 74-83-9-----Bromomethane 11 | U 75-01-:-----Vinyl Chloride 11 U 75-00-3------Chloroethane 11 U 75-09-2-----Methylene Chloride 11 U 1/ 5/175 4 57-64-1-----Acetone 75-15-0-----Carbon Disulfide 11 U 75-35-4-----1,1-Dichloroethene 11 0 11 U 75-34-3-----1,1-Dichloroethane 540-59-0-----1,2-Dichloroethene (total) 11 U 67-66-3-----Chloroform 11 U 107-06-2----1, 2-Dichloroethane טונו 78-93-3----2-Butanone 11 U 11 U 71-55-6-----1,1,1-Trichloroethane 56-23-5------Carbon Tetrachloride 11 | U 11 U 75-27-4-----Bromodichloromethane 78-87-5-----1, 2-Dichloropropane 11 | U 10061-01-5----cis-1,3-Dichloropropene 11 | U 79-01-6-----Trichloroethene 11 | U 124-48-1-----Dibromochloromethane 11 U 79-00-5-----1,1,2-Trichloroethane 11 0 11 U 71-43-2-----Benzene 10061-02-6----trans-1,3-Dichloropropene 11 0 11 | U 75-25-2-----Bromoform 108-10-1-----4-Methyl-2-Pentanone 11 | U 591-78-6----2-Hexanone 11 U 127-18-4-----Tetrachloroethene ·11 U 79-34-5-----1,1,2,2-Tetrachloroethane 11 | U 108-88-3-----Toluene 11 U 108-90-7-----Chlorobenzene 11 | U 11 | U 100-41-4-----Ethvlbenzene טונו 100-42-5-----Styrene 1330-20-7-----Xylene (Total) 11 U

FORM I VOA

EPA SAMPLE NO.

| JM206 |
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Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.:

SDG No.: JM199

Matrix: (soil/water) SOIL

Lab Sample ID: 835300

Sample wt/vol: 5.0 (g/mL) g

Lab File ID: GH035300B51

Level: (low/med) LOW

Date Received: 12/21/96

% Moisture: not dec. 13

Date Analyzed: 12/23/96

GC Column: DB524 ID: 0.53 (mm)

Number TICs found: 3

Dilution Factor: 1.0

Soil Aliquot Volume: ____(uL)

Soil Extract Volume: (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) ug/Kg

| CAS NUMBER COMPOUND NAME RT EST. CONC. Q 1. CO2 (NOT IN TIC TOTAL) 0.83 24 38 (1.ABOPATORY ARTIFACT 16.52 36 I | | 1 | 1 | 1 | | 1 |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|-----------------------------------------|---------------|---------------|-------------|---|
| 1. | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | 0 | |
| LABORATORY ARTIFACT 16.52 36 1 | Ī | ======================================= | ======= | i . | 1 - | 1 |
| 2. LABORATORY ARTIFACT 16.52 36 1 | 1. | COS (NOT IN TIC TOTAL) | 0_83 | 124 | | |
| 3. I.ARORATORY ARTIFACT 19.21 28 J | 1 | LABORATORY ARTIFACT | | | | 1 |
| 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 | 3 | I.ABORATORY ARTIFACT | | | | 1 |
| 9. | <u> </u> | | | 20 | \ \ | ╀ |
| 9. | <u> </u> | | | | | 1 |
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| 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. | | | | | <u> </u> | |
| 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. | | | | ; | | 1 |
| 12. | | | | | | |
| 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. | | | | | | |
| 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. | | | | | | |
| 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. | 13 | | | <u> </u> | | |
| 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. | | | | | | |
| 17. 18. 19. 20. 21. 22. 23. 24. 25. | 15. | | | | | ĺ |
| 18. 19. 20. 21. 22. 23. 24. 25. 26. | 16. | | | | | ĺ |
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| 21. 22. 23. 24. 25. 26. | | | | | | |
| 22. 23. 24. 25. 26. | | | | | | |
| 23. 24. 25. 26. | | | | | | |
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FORM I VOA-TIC

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JM207

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.:

SDG No.: JM199

Matrix: (soil/water) SOIL

Lab Sample ID: 835301

Sample wt/vol: $5.0 (g/\pi L) g$

Lab File ID: GH035301B51

Level: (low/med) LOW

Date Received: 12/21/95

% Moisture: not dec. 13

Date Analyzed: 12/23/96

GC Column:DB624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Aliquot Volume: ____(uL)

Soil Extract Volume:____(uL)

CAS NO. COMPOUND

CONCENTRATION UNITS:

(ug/L or ug/Kg) ug/Kg Q

| | <u> </u> | |
|-----------------------------------------|----------|-----|
| • | · | |
| 74-87-3Chloromethane | 11 | 4 |
| 74-83-9Bromomethane | 11 | |
| 75-01-4Vinyl Chloride | 11 | 1 |
| 75-00-3Chloroethane | 11 | E . |
| 75-09-2Methylene Chloride | 11 | |
| 67-64-1Acetone | 11 | רט |
| 75-15-0Carbon Disulfide | . 11 | U . |
| 75-35-41,1-Dichloroethene | 11 | ע |
| 75-34-31,1-Dichloroethane | 11 | U |
| 540-59-01,2-Dichloroethene (total) | 11 | U |
| 67-66-3Chloroform | 11 | U |
| 107-06-21,2-Dichloroethane | 11 | U |
| 78-93-32-Butanone | 11 | U |
| 71-55-51,1,1-Trichloroethane | 11 | ט |
| 56-23-5Carbon Tetrachloride | 11 | 1 |
| 75-27-4Bromodichloromethane | . 11 | U |
| 78-87-51,2-Dichloropropane | 11 | 1 : |
| 10061-01-5cis-1,3-Dichloropropene | 11 | |
| 79-01-6Trichloroethene | 11 | |
| 124-48-1Dibromochloromethane | 11 | 1 |
| 79-00-51,1,2-Trichloroethane | 11 | |
| 71-43-2Benzene | 11 | I - |
| 10061-02-6trans-1,3-Dichloropropene | īī | 1. |
| 75-25-2Bromoform | 11 | |
| 108-10-14-Methvl-2-Pentanone | 11 | 1 |
| 591-78-62-Hexanone | 11 | 1 |
| 127-18-4Tetrachloroethene | 11 | 1 - |
| 79-34-51,1,2,2-Tetráchloroethane | 11 | |
| 108-SS-3Toluene | 11 | |
| 108-90-7Chlorobenzene | 11 | |
| | 11 | 1 |
| 100-41-4Ethylbenzene 100-42-5Styrene | 11 | i . |
| · | | 1 |
| 1330-20-7Xylene (Total) | 11 | ľ |
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| JM207 | |
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Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM199

Matrix: (soil/water) SOIL

Lab Sample ID: 835301

Sample wt/vol: 5.0 (g/mi) g

Lab File ID: GH035301B51

Level: (low/med) LOW

Date Received: 12/21/96

% Moisture: not dec. 13

Date Analyzed: 12/23/96

GC Column: DB624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: ____(uL)

CONCENTRATION UNITS:

Number TICs found: 2 (ug/L or ug/Kg) ug/Kg

| CAS NUMBER | · COMPOUND NAME | RT | EST. CONC. | |
|------------|------------------------|-------------|-----------------------------------------|------|
| | , | (| ======================================= | |
| 1. | CO2 (NOT IN TIC TUTAL) | 0.83 | 26 | TB O |
| 2. | LABORATORY APTIFACT | 19 20 | 15 | r RI |
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FORM I VOA-TIC

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

JM208

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM199

Matrix: (soil/water) SOIL Lab Sample ID: 835302

Sample wt/vol: 5.0 (g/mL) g Lab File ID: GH035302B51

Level: (low/med) LOW Date Received: 12/21/96

% Moisture: not dec. 12 Date Analyzed: 12/23/96

GC Column: DB624 ID: 0.53 (mm) Dilution Factor: 1.0

COMPOUND

CAS NO.

Soil Extract Volume: ____(uL) Soil Aliquot Volume: ____(uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) ug/Kg Q

74-87-3-----Chloromethane 11 U 74-83-9-----Bromomethane 11 U 75-01-4-----Vinyl Chloride 11 U 75-00-3-----Chloroethane 11 | U 11 | U 75-09-2-----Methylene Chloride 67-64-1-----Acetone 11 W 75-15-0-----Carbon Disulfide 11 U 75-35-4----1,1-Dichloroethene 11 | U 75-34-3----1,1-Dichloroethane 11 U 540-59-0----1,2-Dichloroethene (total) 11 U טן בב 67-66-3-----Chloroform 107-05-2----1, 2-Dichloroethane 11 U 78-93-3-----2-Butanone 11 U 71-55-5-----l, 1, 1-Trichlorcethane 11 U 56-23-5-----Carbon Tetrachloride 11 | U 75-27-4-----Bromodichloromethane 11 U 78-87-5-----1,2-Dichloropropane 11 U 10061-01-5----cis-1,3-Dichloropropene 11 U 79-01-5-----Trichloroethene 11 U 124-48-1-----Dibromochloromethane 11 U 79-00-5-----1,1,2-Trichloroethane 11 U 71-43-2-----Benzene 11 U 10061-02-6----trans-1,3-Dichloropropene 11 U 75-25-2-----Bromoform טןננ 108-10-1-----4-Methyl-2-Pentanone 11 0 591-78-6-----2-Hexanone 11 U 127-18-4-----Tetrachloroethene 11 | U 79-34-5----1,1,2,2-Tetrachloroethane 11 0 10S-SS-3-----Toluene 11 U 108-90-7-----Chlorobensene 11 U 100-41-4-----Ethylbenzene 11 | U 100-42-5-----Styrene 11 U 1330-20-7-----Xvlene (Total) .11 U



EPA SAMPLE NO.

| JM208 | - |
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Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM199

Lab Sample ID: 835302

Matrix: (soil/water) SOIL

Sample wt/vol: 5.0 (g/mL) g Lab File ID: GH035302B51

Level: (low/med) LOW

Date Received: 12/21/96

% Moisture: not dec. 12

Date Analyzed: 12/23/96

GC Column: DB624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: ____(uL)

CONCENTRATION UNITS: (ug/L or ug/Kq) ug/Kg

Number TICs found: 3

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|-------------------|------------------------|---------------------|---------------------------------------|----------|
| _ | CO2 (NOT IN TIC TOTAL) | 0.83 | | I |
| 1. 2. | LABORATORY ARTIFACT | 16.52 | 38 | JB / |
| ∠. ¬ | LABORATORY ARTIFACT | | 20 | |
| ٠ . | LASURELIURY ACTION | 13.21 | | <u> </u> |
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1A VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

JM209

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM199

Matrix: (soil/water) SOIL Lab Sample ID: 835303

Sample wt/vol: 5.0 (g/mL) g Lab File ID: GH035303B51

Level: (low/med) LOW Date Received: 12/21/96

% Moisture: not dec. 13 Date Analyzed: 12/24/96-----

GC Column:DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: ____(uL) Soil Aliquot Volume: ____(uL)

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/Kg Q

| | |
|-----------------------------------------|----------------|
| 74-87-3Chloromethane | 11 0 |
| 74-83-9Bromomethane | ן וו |
| 75-01-4Vinvl Chloride | 11 0 |
| 75-00-3Chloroethane | ט ווי |
| 75-09-2Methylene Chloride | וו |
| 67-64-1Acetone | اللا وتياهي ال |
| 75-15-0Carbon Disulfide | 11 0 |
| 75-35-41,1-Dichloroethene | 11 0 |
| 75-34-31,1-Dichloroethane | 11 0 |
| 540-59-01,2-Dichloroethene (total) | 11 U |
| 67-66-3Chloroform | 11 U |
| 107-06-21,2-Dichloroethane | 11 0 |
| 78-93-32-Butanone | 11 0 |
| 71-55-61,1,1-Trichloroethane | 11 0 |
| 56-23-5Carbon Tetrachloride | 11 0 |
| 75-27-4Bromodichloromethane | 11 0 |
| 78-87-51,2-Dichloropropane | ווֹ ט |
| 10061-01-5cis-1,3-Dichloropropene | ווע |
| 79-01-6Trichloroethene | 11 0 |
| 124-48-1Dibromochloromethane | 11 0 |
| 79-00-51,1,2-Trichloroethane | 11 U |
| 71-43-2Benzene | 11 0 |
| 10061-02-6trans-1,3-Dichloropropene | 11 0 |
| 75-25-2Bromoform | 11 U |
| 108-10-14-Methyl-2-Pentanone | ווע |
| 591-78-62-Hexanone | ווֹע |
| 127-18-4Tetrachloroethene | ווע |
| 79-34-51,1,2,2-Tetrachloroethane | 11 0 |
| 108-SS-3Toluene | 11 0 |
| 108-90-7Chlorobenzene | 11 U |
| 100-41-4Ethylbenzene | 11 0 |
| 100-42-5Styrene | . 11 U |
| 1330-20-7 | 11 0 |
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EPA SAMPLE NO.

| Lab | Name | : COM | PUCHEM | ENV. | CORP. |
|-----|------|-------|--------|------|-------|
|-----|------|-------|--------|------|-------|

Contract: 68D50009

| JM209 | |
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Lab Code: COMPU Case No.: 25253 SAS No.:

SDG No.: JM199

Matrix: (soil/water) SOIL

Lab Sample ID: 835303

Sample wz/vol: 5.0 (g/mL) g

Lab File ID: GH035303B51

Level: (low/med) LOW

Date Received: 12/21/96

% Moisture: not dec. 13

Date Analyzed: 12/24/96

GC Column: DB624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

recycled paper recycled paper Soil Aliquot Volume: ____(uL)

CONCENTRATION INITE.

| Number TICs found: 2 | (ug/L or ug/Kg) ug/Kg |
|----------------------|---------------------------------------|
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| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q | |
|--------------------------------------------------|--------------------------------------------|-------|------------|------|--|
| $\begin{array}{c} \frac{1}{2}.\\ 2. \end{array}$ | CO2 (NOT IN TIE TOTAL) LABORATORY ARTIFACT | 19 21 | 36 | JB K | |
| 3. 4. 5. | | | | | |
| 6. 7. 8. | | | | | |
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| 11. 12. 13. | | | | | |
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FORM I VOA-TIC

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

JM210

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.:

SDG No.: JM199

Matrix: (soil/water) SOIL Lab Sample ID: 835372

Sample wt/vol: 5.0 (g/mL) g Lab File ID: GH035372B51

Level: (low/med) LOW Date Received: 12/21/96

% Moisture: not dec. 11 Date Analyzed: 12/26/96

GC Column:D3624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/Kg Q

| 74-87-3 | | | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|-------------|------|
| 75-01-4 | 74-87-3Chloromethane | . 11 | U |
| 75-01-4 | 74-83-9Bromomethane | 11 | U |
| 75-00-3 | 75-01-4Vinvl Chloride | | |
| 67-64-1 | | . 11 | U |
| 67-64-1 | 75-09-2Methylene Chloride | جسر اا | To D |
| 75-15-0 | | \sim | |
| 75-35-41,1-Dichloroethene 11 U 75-34-31,1-Dichloroethene 11 U 540-59-01,2-Dichloroethene (total) 11 U 67-65-3 | | | |
| 75-34-31,1-Dichloroethane 540-59-01,2-Dichloroethene (total) 11 U 67-66-3 | | | L . |
| 540-59-01,2-Dichloroethene (total) 11 U 67-66-3Chloroform 11 U 107-06-21,2-Dichloroethane 11 U 78-93-32-Butanone 11 U 71-55-61,1,1-Trichloroethane 11 U 56-23-5Carbon Tetrachloride 11 U 75-27-4Bromodichloromethane 11 U 78-87-51,2-Dichloropropane 11 U 10061-01-5cis-1,3-Dichloropropene 11 U 79-01-6Trichloroethane 11 U 79-00-51,1,2-Trichloroethane 11 U 71-43-2Benzene 11 U 10061-02-6trans-1,3-Dichloropropene 11 U 75-25-2Bromoform 11 U 108-10-14-Methyl-2-Pentanone 11 U 591-78-62-Hexanone 11 U 127-18-4Tetrachloroethene 11 U 108-88-3Toluene 11 U 108-90-7Chlorobenzene 11 U 100-42-5Styrene 11 U | | | 1 |
| 67-66-3Chloroform 11 U 107-06-21,2-Dichloroethane 11 U 78-93-32-Butanone 11 U 71-55-51,1,1-Trichloroethane 11 U 56-23-5Carbon Tetrachloride 11 U 75-27-4Bromodichloromethane 11 U 78-87-51,2-Dichloropropane 11 U 10061-01-5cis-1,3-Dichloropropane 11 U 79-01-6Trichloroethane 11 U 124-48-1Dibromochloromethane 11 U 79-00-51,1,2-Trichloroethane 11 U 1061-02-6trans-1,3-Dichloropropane 11 U 108-10-1Benzene 11 U 108-10-1Benzene 11 U 108-10-1Benzene 11 U 108-10-1Benzene 11 U 108-10-1 | | 1 | 1 |
| 107-06-21, 2-Dichloroethane 11 U 78-93-32-Butanone 11 U 71-55-61, 1, 1-Trichloroethane 11 U 56-23-5Carbon Tetrachloride 11 U 75-27-4Bromodichloromethane 11 U 78-87-51, 2-Dichloropropane 11 U 10061-01-51, 3-Dichloropropene 11 U 79-01-6Trichloroethane 11 U 79-01-6 | | | ľ |
| 78-93-32-Butanone 11 U 71-55-51,1,1-Trichloroethane 11 U 56-23-5Carbon Tetrachloride 11 U 75-27-4Sromodichloromethane 11 U 78-87-51,2-Dichloropropane 11 U 10061-01-5cis-1,3-Dichloropropene 11 U 79-01-6Trichloroethane 11 U 79-00-51,1,2-Trichloroethane 11 U 79-00-5Senzene 11 U 10061-02-6trans-1,3-Dichloropropene 11 U 75-25-2Bromoform 11 U 108-10-14-Methyl-2-Pentanone 11 U 591-78-52-Hexanone 11 U 127-18-4Tetrachloroethane 11 U 108-88-3Toluene 11 U 108-90-7Chlorobenzene 11 U 100-41-4Ethylbenzene 11 U | | | 1 |
| 71-55-51,1,1-Trichloroethane 11 U 56-23-5Carbon Tetrachloride 11 U 75-27-4Bromodichloromethane 11 U 78-87-51,2-Dichloropropane 11 U 10061-01-5cis-1,3-Dichloropropene 11 U 79-01-6Trichloroethane 11 U 79-00-51,1,2-Trichloroethane 11 U 79-00-51,1,2-Trichloroethane 11 U 71-43-2Benzene 11 U 10061-02-6trans-1,3-Dichloropropene 11 U 75-25-2Bromoform 11 U 108-10-14-Methyl-2-Pentanone 11 U 591-78-32-Hexanone 11 U 127-18-4Tetrachloroethane 11 U 108-88-3Toluene 11 U 108-90-7Chlorobenzene 11 U 100-41-4Ethylbenzene 11 U 100-42-5Styrene 11 U | | | |
| 56-23-5 | | | 1 |
| 75-27-4 | | | |
| 78-87-51, 2-Dichloropropane 11 U 10061-01-5cis-1, 3-Dichloropropene 11 U 79-01-6Trichloroethene 11 U 124-48-1Dibromochloromethane 11 U 79-00-51, 1, 2-Trichloroethane 11 U 71-43-2Benzene 11 U 10061-02-6trans-1, 3-Dichloropropene 11 U 75-25-2Bromoform 11 U 108-10-14-Nethyl-2-Pentanone 11 U 591-78-62-Hexanone 11 U 127-18-4Tetrachloroethene 11 U 79-34-51, 1, 2, 2-Tetrachloroethane 11 U 108-88-3Chlorobenzene 11 U 100-41-4Ethylbenzene 11 U 100-42-5Styrene 11 U | | | |
| 10061-01-5cis-1,3-Dichloropropene 11 U 79-01-6Trichloroethene 11 U 124-48-1Dibromochloromethane 11 U 79-00-51,1,2-Trichloroethane 11 U 71-43-2Benzene 11 U 10061-02-6trans-1,3-Dichloropropene 11 U 75-25-2Bromoform 11 U 108-10-14-Methyl-2-Pentanone 11 U 591-78-62-Hexanone 11 U 127-18-4Tetrachloroethene 11 U 79-34-5Toluene 11 U 108-88-3Toluene 11 U 108-90-7Chlorobenzene 11 U 100-41-4Ethylbenzene 11 U 100-42-5 | | | |
| 79-01-6Trichloroethene 11 U 124-48-1Dibromochloromethane 11 U 79-00-51,1,2-Trichloroethane 11 U 71-43-2Benzene 11 U 10061-02-6trans-1,3-Dichloropropene 11 U 75-25-2Bromoform 11 U 108-10-14-Methyl-2-Pentanone 11 U 591-78-62-Hexanone 11 U 127-18-4Tetrachloroethene 11 U 79-34-51,1,2,2-Tetrachloroethane 11 U 108-88-3Toluene 11 U 108-90-7Chlorobenzene 11 U 100-41-4Ethylbenzene 11 U 100-42-5Styrene 11 U | | | |
| 124-48-1 | | | 1 |
| 79-00-51,1,2-Trichloroethane 11 U 71-43-2Benzene 11 U 10061-02-6trans-1,3-Dichloropropene 11 U 75-25-2Bromoform 11 U 108-10-14-Methyl-2-Pentanone 11 U 591-78-62-Hexanone 11 U 127-18-4Tetrachloroethene 11 U 79-34-51,1,2,2-Tetrachloroethane 11 U 108-88-3Toluene 11 U 108-90-7Chlorobenzene 11 U 100-41-4Ethylbenzene 11 U 100-42-5 | | | |
| 71-43-2 | | | |
| 10061-02-6trans-1,3-Dichloropropene 11 U 75-25-2Bromoform 11 U 108-10-14-Methyl-2-Pentanone 11 U 591-78-62-Hexanone 11 U 127-18-4Tetrachloroethene 11 U 79-34-51,1,2,2-Tetrachloroethane 11 U 108-88-3Toluene 11 U 108-90-7Chlorobenzene 11 U 100-41-4Ethylbenzene 11 U | | | |
| 75-25-2Bromoform 108-10-14-Methyl-2-Pentanone 11 U 191-78-62-Hexanone 11 U 127-18-4Tetrachloroethene 79-34-51,1,2,2-Tetrachloroethane 108-88-3Toluene 108-90-7Chlorobenzene 11 U 100-41-4Ethylbenzene 11 U 100-42-5Styrene | | | l |
| 108-10-14-Methyl-2-Pentanone 11 U 591-78-62-Hexanone 11 U 127-18-4Tetrachloroethene 11 U 79-34-51,1,2,2-Tetrachloroethane 11 U 108-88-3Toluene 11 U 108-90-7Chlorobenzene 11 U 100-41-4Ethylbenzene 11 U 100-42-5Styrene 11 U | | | |
| 591-78-62-Hexanone 11 U 127-18-4Tetrachloroethene 11 U 79-34-51,1,2,2-Tetrachloroethane 11 U 108-88-3Toluene 11 U 108-90-7Chlorobenzene 11 U 100-41-4Ethylbenzene 11 U 100-42-5Styrene 11 U | | | |
| 127-18-4Tetrachloroethene 11 U 79-34-51,1,2,2-Tetrachloroethane 11 U 108-88-3Toluene 11 U 108-90-7Chlorobenzene 11 U 100-41-4Ethylbenzene 11 U 100-42-5Styrene 11 U | | | l |
| 79-34-51,1,2,2-Tetrachloroethane 11 U 108-88-3Toluene 11 U 108-90-7Chlorobenzene 11 U 100-41-4Ethylbenzene 11 U 100-42-5Styrene 11 U | | | |
| 10S-SS-3Toluene 11 U 10S-90-7Chlorobenzene 11 U 100-41-4Ethylbenzene 11 U 100-42-5Styrene 11 U | | | |
| 10S-90-7Chlorobenzene 11 U 100-41-4Ethylbenzene 11 U 100-42-5Styrene 11 U | | | ! |
| 100-41-4Ethylbenzene 11 U 100-42-5Styrene 11 U | | | |
| 100-42-5Styrene 11 U | | |) |
| | · · · · · · · · · · · · · · · · · · · | | |
| 1330-20-7Xylene (Total) 11 U | | | |
| | 1330-20-7Xylene (Total) | 11 | U |
| | | | |

01M03

| | | | JM210 |
|-----------|-----------|---|-------|
| Contract: | 68D50009. | } | |

Lab Name: COMPUCHEM ENV. CORP.

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM199

Matrix: (soil/water) SOIL

Lab Sample ID: 835372

Sample wt/vol: 5.0 (g/mL) g

Lab File ID: GH035372B51

Level: (low/med) LOW .

Date Received: 12/21/96

% Moisture: not dec. 11

Date Analyzed: 12/26/96

GC Column: D3624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Aliquot Volume: ____(uL)

Soil Extract Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

Number TICs found: 2

CAS NUMBER COMPOUND NAME. RT EST. CONC. CO2 (NOT IN THE TOTAL) - 3.87 2. LABORATORY ARTIFACT 26.54 10. 11. 13. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30.

ecology and environment MO3.0

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

JM169

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM199

Matrix: (soil/water) SOIL

Lab Sample ID: 835370

Sample wt/vol: 30.2 (g/mL) g

Lab File ID: GH035370A64

Level: (low/med) LOW

Date Received: 12/21/96

% Moisture: 14 decanted: (Y/N) N

Date Extracted:12/23/96

Concentrated Extract Volume: 500(uL) Date Analyzed: 12/29/96

Injection Volume: -2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.5

CAS NO. COMPOUND

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

| , | <u></u> | Τ |
|--------------------------------------|---------|-----|
| 108-95-2Phenol | 380 | U |
| 111-44-4bis(2-Chloroethyl)ether | 380 | 1 - |
| 95-57-82-Chlorophenol | 380 | U |
| 541-73-11,3-Dichlorobenzene | 380 | lυ |
| 106-46-71,4-Dichlorobenzene | 380 | 1 |
| 95-50-11,2-Dichlorobenzene | 380 | t . |
| 95-48-72-Methylphenol | 380 | |
| 108-60-12,2'-oxybis(1-Chloropropane) | 380 | 1 " |
| 106-44-54-Methylphenol | 380 | |
| 621-64-7N-Nitroso-di-n-propylamine | 380 | - |
| 67-72-1Hexachloroethane | 380 | |
| 98-95-3Nitrobenzene | 380 | |
| 78-59-1Isophorone | 380 | |
| 88-75-52-Nitrophenol | 380 | |
| 105-67-92,4-Dimethylphenol | 380 | l |
| 111-91-1bis (2-Chloroethoxy) methane | 380 | 1 - |
| 120-83-22,4-Dichlorophenol | 380 | - |
| 120-82-11,2,4-Trichlorobenzene | 380 | |
| 91-20-3Naphthalene | 380 | |
| 106-47-84-Chloroaniline | 380 | - |
| 87-68-3Hexachlorobutadiene | 380 | _ |
| 59-50-74-Chloro-3-methylphenol | 380 | |
| 91-57-62-Methylnaphthalene | 380 | |
| 77-47-4Hexachlorocyclopentadiene | 380 | - |
| 88-06-22,4,6-Trichlorophenol | 380 | _ |
| 95-95-42,4,5-Trichlorophenol | 960 | _ |
| 91-58-72-Chloronaphthalene | 380 | _ |
| SS-74-42-Nitroaniline | 960 | |
| 131-11-3Dimethylphthalate | 380 | _ |
| 208-96-8Acenaphthylene | 380 | |
| 606-20-22,6-Dinitrotoluene | 380 | |
| 99-09-23-Nitroaniline | 960 | Ü |
| 83-32-9Acenaphthene | | U |
| 55-52-2 | 380 | ١٠ |
| | l | |

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

JM159

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM199

Matrix: (soil/water) SOIL

Lab Sample ID: 835370

Sample wt/vol: 30.2 (g/mL) g

Lab File ID: GH035370A64

Level: (low/med) LOW

Date Received: 12/21/96

% Moisture: 14 decanted: (Y/N) N Date Extracted:12/23/96

Concentrated Extract Volume: 500 (uL) Date Analyzed: 12/29/96

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.5

| | • | CONCENTRATION UNITS: | |
|---------|----------|-----------------------|---|
| CAS NO. | COMPOUND | (ug/L or ug/Kg) ug/Kg | Ç |

| | 2,4-Dinitrophenol | 960 | |
|-----------|----------------------------|-------|-----|
| 100-02-7 | 4-Nitrophenol | 960 | U |
| 132-64-9 | Dibenzofuran | 380 | U |
| 121-14-2 | 2,4-Dinitrotoluene | . 380 | |
| 84-66-2 | Diethylphthalate | .84 | JV |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 380 | |
| | Fluorene | 380 | U |
| | 4-Nitroaniline_ | 960 | עט |
| 534-52-1 | 4,6-Dinitro-2-methylphenol | 960 | Ū |
| 86-30-6 | N-nitrosodiphenylamine (1) | 380 | Ū |
| 101-55-3 | 4-Bromophenyl-phenylether | 380 | U |
| 118-74-1 | Hexachlorobenzene | 380 | ប |
| 87-86-5 | Pentachlorophenol | 960 | ט |
| 85-01-8 | Phenanthrene | 380 | U |
| 120-12-7 | Anthracene | 380 | U |
| 86-74-8 | Carbazole | 380 | ע / |
| 84-74-2 | Di-n-butylphthalate | . 49 | JV, |
| 206-44-0 | Fluoranthene | 40 | J / |
| 129-00-0 | Pyrene - | 39 | J / |
| 85-68-7 | Butylbenzylphthalate | 380 | U |
| 91-94-1 | 3,3'-Dichlorobenzidine | 380 | W |
| 56-55-3 | Benzo(a) anthracene | 380 | U |
| 218-01-9 | Chrysene | 380 | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | 60 | J |
| 117-84-0 | Di-n-octylphthalate | 380 | U |
| 205-99-2 | Benzo(b) fluoranthene | 380 | U. |
| 207-08-9 | Benzo(k) fluoranthene | 380 | U |
| 50-32-8 | Benzo(a)pyrene | 380 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 380 | U |
| 53-70-3 | Dibenzo (a, h) anthracene | . 380 | U |
| 191-24-2 | Benzo(g,h,i)perylene | 380 | U |

EPA SAMPLE NO.

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

JM169

Lab Code: COMPU Case No.: 25253 SAS No.:

SDG No.: JM199

Matrix: (soil/water) SOIL

Lab Sample ID: 835370

Sample wt/vol: 30.2 (g/mL) g Lab File ID: GH035370A64

Level: (low/med) LOW

Date Received: 12/21/96

Date Extracted:12/23/96

Concentrated Extract Volume: 500(uL) Date Analyzed: 12/29/96

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

% Moisture: 14 decanted: (Y/N) N

GPC Cleanup: (Y/N) Y pH: 6.5

Number TICs found: 20

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

| | COMBONE WAY | | | |
|------------|--------------------------|--------------------|------------|------------|
| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q ===== |
| 1. | ALDOL (BC) | 4.49 | 4800 | 1 |
| 2. | UNKNOWN PHTHALATE | 14.28 | . 82 | 1 |
| 3. | UNKNOWN ALCOHOL | 14.43 | 100 | |
| 4. 57-10-3 | HEXADECANOIC ACID | 14.91 | 200 | NJ |
| 5. | UNKNOWN | 15.10 | 440 | (NE |
| 5. | UNKNOWN ALCOHOL | 15.75 | 1500 | J |
| 7. | UNKNOWN | 16.10 | 280 | J |
| 8. | UNKNOWN | 16.21 | 85 | J |
| 9. | UNKNOWN | 16.36 | 2800 | J |
| 10. | NNONN | 17.05 | 140 | J |
| 11. | UNKNOWN | 17.16 | 120 | J. |
| 12. | NMONYKU | 17.40 | | ال الت |
| 13. | UNIQIONN (BC) | - 27.53 | 689 | |
| 14. | UNKNOWN ALCOHOL | 18.14 | 100 | JN |
| 15. | UNKNOWN | 19.59 | 280 | J'I |
| 16. | UNFUOWN | 20.01 | 140 | J |
| 17. | UNKNOWN ALCOHOL- | 20.19 | 120 | J |
| 13. | UNKNOWN . | 20.23 | 92 | J |
| 19. | UNKNOWN | 21.30 | 140 | J/ |
| 20. | UNANOWN | 23.20 | 140 | JY |
| 21 | | i | | |
| 22 | | | | |
| 23. | | | | |
| (24. | | | | |
| 1 25. | | | | |
| 25. | | | | |
| 37. | | | | |
| 28. | | | · | |
| 29 | | | | |
| 30. | | | | |
| | | | _ | 1 |

EPA SAMPLE NO.

JM179

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM199

Matrix: (soil/water) SOIL

Lab Sample ID: 835371

Sample wt/vol: 30.0 (g/mL) g

Lab File ID: GH035371A64

Level: (low/med)

LOW

Date Received: 12/21/96

% Moisture: 8

decanted: (Y/N) N

Date Extracted:12/23/96

Concentrated Extract Volume: 500(uL) Date Analyzed: 12/29/96

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.6

CONCENTRATION UNITS:

CAS NO. (ug/L or ug/Kg) ug/Kg COMPOUND

| 108-95-2Phenol | 360 | IJ |
|--------------------------------------|-----|-----|
| 111-44-4bis(2-Chloroethyl)ether | 360 | I . |
| 95-57-82-Chlorophenol | 360 | |
| 541-73-11,3-Dichlorobenzene | 360 | |
| 106-46-71,4-Dichlorobenzene | 360 | ſ |
| 95-50-11,2-Dichlorobenzene | 360 | U |
| 95-48-72-Methylphenol | 360 | U |
| 108-60-12,2'-oxybis(1-Chloropropane) | 360 | U |
| 106-44-54-Methylphenol | 360 | Ū |
| 621-64-7N-Nitroso-di-n-propylamine | 360 | U |
| 67-72-1Hexachloroethane | 360 | U |
| 98-95-3Nitrobenzene | 360 | U |
| 78-59-1Isophorone | 360 | U |
| 88-75-52-Nitrophenol | 360 | |
| 105-67-92,4-Dimethylphenol | 360 | |
| 111-91-1bis(2-Chloroethoxy)methane | 360 | |
| 120-83-22,4-Dichlorophenol | 360 | |
| 120-82-11,2,4-Trichlorobenzene | 360 | |
| 91-20-3Naphthalene | 360 | |
| 106-47-84-Chloroaniline | 360 | |
| 87-68-3Hexachlorobutadiene | 360 | |
| 59-50-74-Chloro-3-methylphenol | 360 | |
| 91-57-62-Methylnaphthalene | 360 | |
| 77-47-4Hexachlorocyclopentadiene | 360 | |
| 88-06-22,4,6-Trichlorophenol | 360 | |
| 95-95-42,4,5-Trichlorophenol | 900 | |
| 91-58-72-Chloronaphthalene | 360 | |
| 88-74-42-Nitroaniline | 900 | |
| 131-11-3Dimethylphthalate | 360 | _ |
| 208-96-8Acenaphthylene | 360 | |
| 606-20-22,6-Dinitrotoluene | 360 | |
| 99-09-23-Nitroaniline | 900 | |
| 83-32-9Acenaphthene | 360 | U |
| · | 11 | |

JM179

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.:

SDG No.: JM199

Matrix: (soil/water) SOIL

Lab Sample ID: 835371

Sample wt/vol: 30.0 (g/mL) g Lab File ID: GH035371A64

Level: (low/med) LOW

Date Received: 12/21/96

% Moisture: 8 decanted: (Y/N). N Date Extracted:12/23/96

Concentrated Extract Volume: 500(uL) Date Analyzed: 12/29/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

CONCENTRATION UNITS:

GPC Cleanup: (Y/N) Y pH: 7.6

| CAS NO. | COMPOUND (1 | ug/L or ug/Kg) | ug/Kg | Q |
|-----------|-------------------------|----------------|-------|------------|
| 51-28-5 | 2,4-Dinitrophenol | | 900 | رتا |
| 100-02-7 | 4-Nitrophenol | | 900 | ַ <u>"</u> |
| 132-64-9 | Dibenzofuran | | 360 | U |
| 121-14-2 | 2,4-Dinitrotoluene | | 360 | U / |
| 84-66-2 | Diethylphthalate | | 56 | J |
| 7005-72-3 | 4-Chlorophenyl-pher | ylether | 360 | lυ |
| 86-73-7 | Fluorene | - | 360 | U |
| | 4-Nitroaniline | | 900 | ן נט |
| 534-52-1 | 4,6-Dinitro-2-methy | lphenol | 900 | |
| | N-nitrosodiphenylam | | 360 | |
| 101-55-3 | 4-Bromophenyl-pheny | lether | . 360 | |
| 118-74-1 | Hexachlorobenzene | | 360 | |
| | Pentachlorophenol | | 900 | |
| | Phenanthrene | } | 360 | |
| | Anthracene | | 360 | |
| | Carbazole | | . 360 | |
| | Di-n-butylphthalate | - | 48 | |
| | Fluoranthene | | 360 | - |
| 129-00-0 | | | 3601 | |
| 85-68-7 | Butylbenzylphthalat | .e | 360 | - |
| 91-94-1 | 3,3'-Dichlorobenzid | line | 360 | |
| 56-55-3 | Benzo(a)anthracene | | 360 | |
| | Chrysene | | 360 | |
| | bis(2-Ethvlhexyl)ph | thalate | 170 | |
| | Di-n-octylphthalate | | 360 | |
| 205-99-2 | Benzo(b) fluoranthen | e | 360 | |
| | Benzo(k) fluoranthen | | . 360 | |
| | Benzo (a) pyrene | | 360 | |
| | Indeno (1, 2, 3-cd) pyr | ene | 360 | |
| 53-70-3 | Dibenzo(a,h)anthrac | ene | . 360 | |
| | Benzo(g,h,i)perylen | | 360 | |
| | | | 200 | |
| | | | | |

(1) - Cannot be separated from Diphenylamine

JM179

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM199

Matrix: (soil/water) SOIL

Lab Sample ID: 835371

Sample wt/vol: 30.0 (g/mL) g

Lab File ID: GH035371A64

Level: (low/med) LOW

Date Received: 12/21/96

% Moisture: 8 decanted: (Y/N). N

Date Extracted:12/23/96

Concentrated Extract Volume: 500(uL) Date Analyzed: 12/29/96

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.6

Number TICs found: 24

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|------------|-------------------------|------------------|------------|-------------------|
| 1. | 21 DOL (BC) | 4-40 | 4700 | JAB R |
| 2. | UNIQIOWN (BC) | 4.72 | 86 | JB R |
| 3. | UNKNOWN | 12.94 | 100 | JH N |
| 4. | UNKNOWN | 14.41 | 80 | Jì |
| 5. | UNKNOWN CARBOXYLIC ACID | 14.91 | 190 | J |
| 6 . | UNKNOWN | 15.09 | 390 | J |
| 7. | UNKNOWŃ | 15.27 | 1900 | J |
| S. | UNKNOWN | 15.39 | . 97 | J |
| 9. | UNKNOWN | 15.62 | 100 | J |
| 10. | UNKNOWN ALCOHOL | 15.75 | 1900 | J |
| 11. | UNKNOWN . | 16.10 | 300 | J |
| 12. | NUKNOMN | 16.21 | 240 | J |
| 13. | UNKNOWN | 16.29 | 140 | J |
| 14. | UNKNOWN | 16.36 | 3300 | JI |
| 15. | UNKNOWN ALCOHOL | 17.01 | 200 | J V |
| 16. | UNKNOWN | 17.16 | 92 | Jh |
| 17. | UNTAYONN (BC) | 17.28 | 92 | . TB (|
| 1S. | UNKNOWN | 17.41 | 120 | Jh |
| 19. | UNKNOWN | 17.56 | 17000 | J. |
| 20. | UNKNOWN | 17.93 | 81 | J |
| 21. | UNKNOWN . | 18.13 | 120 | J |
| 22. | UNKNOWN | 19.16 | 95 | J |
| 23. | UNKNOWN AMIDE | 19.59 | 390 | J |
| 24. | UNKNOWN | 20.01 | 140 | J√ |
| 25 | | | | } |
| 26. | | | | |
| 27. | | | | |
| 23. | | | | |
| 29. | | | | |
| 30. | | | | |
| | | | | |

JM199

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM199

Matrix: (soil/water) SOIL

Lab Sample ID: 835285

Sample wt/vol: 30.0 (g/mL) g Lab File ID: GH035285A64

Level: (low/med) LOW

Date Received: 12/21/96

% Moisture: 14 decanted: (Y/N) N Date Extracted: 12/23/96

Concentrated Extract Volume: 500(uL) Date Analyzed: 12/29/96

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.5

CONCENTRATION UNITS: CAS NO. COMPOUND (ug/L or ug/Kg) ug/Kg Q

| , | | , |
|--------------------------------------|-------------|-------|
| 108-95-2Phenol | 380 | U |
| 111-44-4bis(2-Chloroethyl)ether | 380 | U |
| 95-57-82-Chlorophenol | 380 | ן טן |
| 541-73-11,3-Dichlorobenzene | 380 | ן טן |
| 106-45-71,4-Dichlorobenzene | 380 | ן טן |
| 95-50-11,2-Dichlorobenzene | 380 | 1 1 |
| 95-48-72-Methylphenol | 380 | 1 |
| 108-60-12,2'-exybis(1-Chloropropane) | 380 | 1 1 |
| 106-44-54-Methylphenol | 380 | 1 - 1 |
| 621-64-7Nitroso-di-n-propylamine | 380 | 1 - 1 |
| 67-72-1Hexachloroethane | 380 | 1 1 |
| 98-95-3Nitrobenzene | 380 | 1 1 |
| 78-59-1Isophorone | 380 | - |
| 68-75-52-Nitrophenol | 380 | 1 |
| 105-67-92,4-Dimethylphenol | 380 | |
| 111-91-1bis (2-Chloroethoxy) methane | 380 | |
| 120-83-22,4-Dichlorophenol | 380 | |
| 120-83-22,4-Bichiolophehol | 380 | |
| 91-20-3Naphthalene | 380 | - 1 |
| 106-47-84-Chloroaniline | 380 | |
| 87-68-3Hexachlorobutadiene | 380 | |
| | , | 1 |
| 59-50-74-Chloro-3-methylphenol | 380 | - |
| 91-57-62-Methylnaphthalene | 380 | |
| 77-47-4Hexachlorocyclopentadiene | 380 | |
| 88-06-22,4,6-Trichlorophenol | 380 | 1 |
| 95-95-42,4,5-Trichlorophenol | 960 | - 1 |
| 91-58-72-Chloronaphthalene | 380 | |
| 88-74-42-Nitroaniline | 960 | |
| 131-11-3Dimethylphthalate | 380 | - / |
| 208-96-8Acenaphthylene | 380 | |
| 606-20-22,6-Dinitrotoluene | 380 | |
| 99-09-23-Nitroaniline | | U |
| 83-32-9Acenaphthene | 380 | ַן ע |
| | l | l/i |
| | | |

JM199

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM199

Matrix: (soil/water) SOIL Lab Sample ID: 835285

Sample wt/vol: 30.0 (g/mL) g Lab File ID: GH035285A64

Level: (low/med) LOW Date Received: 12/21/96

% Moisture: 14 decanted: (Y/N) N Date Extracted:12/23/96

Concentrated Extract Volume: 500(uL) Date Analyzed: 12/29/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.5

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/Kg Q

| | | |
|-------------------------------------|-------------|-------------|
| 51-28-52,4-Dinitrophenol | 960 | ریا |
| 100-02-74-Nitrophenol | 960 | |
| 132-64-9Dibenzofuran | 380 | |
| 121-14-22,4-Dinitrotoluene | 380 | |
| 84-66-2Diethylphthalate | 240 | |
| 7005-72-34-Chlorophenyl-phenylether | 380 | |
| 86-73-7Fluorene | 380 | 1 |
| 100-01-64-Nitroaniline | 960 | |
| 534-52-14,6-Dinitro-2-methylphenol | 960 | |
| | 380 | |
| 86-30-6N-nitrosodiphenylamine (1) | | |
| 101-55-34-Bromophenyl-phenylether | 380 | |
| 118-74-1Hexachlorobenzene | 380 | |
| 87-86-5Pentachlorophenol | 960 | |
| S5-01-SPhenanthrene | . 380 | |
| 120-12-7Anthracene | 380 | |
| 86-74-8Carbazole | 380 | |
| 84-74-2Di-n-butylphthalate | 380 | |
| 206-44-0Fluoranthene | 380 | - |
| 129-00-0Pyrene | 380 | |
| S5-68-7Butylbenzylphthalate | 380 | |
| 91-94-13,3'-Dichlorobenzidine | 380 | |
| 56-55-3Benzo(a)anthracene | 380 | , |
| 218-01-9Chrysene | 380 | |
| 117-81-7bis(2-Ethylhexyl)phthalate | 86 | JV |
| 117-84-0Di-n-octylphthalate | 380 | U |
| 205-99-2Benzo(b) fluoranthene | 380 | ប |
| 207-08-9Benzo(k)fluoranthene | 380 | U |
| 50-32-8Benzo(a)pyrene | 380 | Ū |
| 193-39-5Indeno(1,2,3-cd)pyrene | 380 | U |
| 53-70-3Dibenzo(a,h)anthracene | 380 | |
| 191-24-2Benzo(g,h,i)perylene | .380 | |
| | | |
| | 1 ' | |

(1) - Cannot be separated from Diphenylamine

ecology and environment

JM199

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM199

Matrix: (soil/water) SOIL

Lab Sample ID: 835285

Sample wt/vol: 30.0 (g/mL) g

Lab File ID: GH035285A64

Level: (low/med) LOW

Date Received: 12/21/96

% Moisture: 14 decanted: (Y/N) N Date Extracted:12/23/96

Concentrated Extract Volume: 500 (uL) Date Analyzed: 12/29/96

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.5

Number TICs found: 25

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|-------------|----------------------------------------------------------|--------|------------|-------------|
| <u>1</u> . | ALDOL (3C) | 4.49 | 6100 | JAB |
| 2. | UNIQUOINI (BC) | 4.71 | 100 | # A |
| 3. | עאסאאע | 14.45 | 85 | JA) |
| ÷. | UNKNOWN | 14.87 | 94 | J |
| 5. | UNKNOWN CARBONYLIC ACID | 14.91 | 340 | |
| б. | NAKOWA . | 15.10 | 200 | |
| 7. | MYNOWN | 16.11 | . 140 | ('1 |
| 8. | אאסאאעט | 16.21 | 92 | J |
| 9. | UNIZVOWN | 17.05 | 110 | J |
| 10. | UNIZOVIN | 17.16 | 110 | |
| <u>11</u> . | UNKNOWN | 17.54 | 370 | J · |
| 12. | UNKNOWN ALDEHNDE | 17.78 | 79 | J |
| 13. | UNKNOWN ALCOHOL | .18.13 | 540 | J |
| 14. | UNKNOWN | 19.18 | 380 | J |
| 15. | UNKNOWN AMIDE | 19.59 | 290 | J |
| 16. | UNYMOMN | 20.16 | 270 | J |
| 17. | UNKNOWN - | 20.90 | 220 | J |
| 13. | UNKNOWN ALCOHOL | 21.29 | 480 | J |
| 19. | UNKNOWN | 22.44 | 160 | J |
| 20. | NNONN | 22.65 | 200 | J |
| 21. | UNKNOWN | 23.19 | 540 | J |
| 22. | UNKNOWN | 23.34 | 110 | J |
| 23. | UNKNOWN | 23.58 | 100 | J |
| 24. | אייסאאט | 24.38 | 100 | J/ |
| 25. | UNKNOWN | 24.52 | | JV |
| 26. | | | | |
| 27. | | | | |
| 28. | | | | |
| 29. | | | | |
| 30. | | | | |
| | | | | |

FORM I SV-TIC

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

JM200

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM199

Matrix: (soil/water) SOIL

Lab Sample ID: 835294

Sample wt/vol: 30.1 (g/mL) g

Lab File ID: GJ035294C64

Level: (low/med) LOW

Date Received: 12/21/96

% Moisture: 12 decanted: (Y/N) N

Date Extracted:12/23/96

Concentrated Extract Volume: 500(uL) Date Analyzed: 12/30/96

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.5

CAS NO. COMPOUND

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg Q

| 108-95-2 | Phenol | 370 | U |
|----------|------------------------------|---------|------------|
| | bis(2-Chloroethyl)ether | 370 | ł - |
| | 2-Chlorophenol | 370 | Į - |
| | 1,3-Dichlorobenzene | 370 | Ū |
| | 1,4-Dichlorobenzene | 370 | |
| | 1,2-Dichlorobenzene | 370 | |
| | 2-Methylphenol | 370 | i 1 |
| | 2,2'-oxybis(1-Chloropropane) | 370 | υ. |
| 106-44-5 | 4-Methylphenol | 370 | |
| | N-Nitroso-di-n-propylamine | 370 | U I |
| | Hexachloroethane | 370 | ן ט |
| | Nitrobenzene | 370 | ט |
| | Isophorone | 370 | ן מ |
| | 2-Nitrophenol | 370 | U |
| | 2,4-Dimethylphenol | 370 | ט |
| | bis(2-Chloroethoxy) methane | 370 | ט |
| | 2,4-Dichlorophenol | 370 | |
| | 1,2,4-Trichlorobenzene | 370 | U |
| 91-20-3 | Naphthalene | 370 | Ū |
| | 4-Chloroaniline | 370 | |
| 87-68-3 | Hexachlorobutadiene | . 370 | U |
| | 4-Chloro-3-methylphenol | 370 | U |
| | 2-Methylnaphthalene | 370 | บ |
| | Hexachlorocyclopentadiene | 370 | |
| 88-06-2 | 2,4,6-Trichlorophenol | 370 | บ |
| | 2,4,5-Trichlorophenol | 940 | U |
| | 2-Chloronaphthalene | 370 | U |
| | 2-Nitroaniline | 940 | U |
| | Dimethylphthalate | 370 | |
| | Acenaphthylene | 370 | |
| | 2,6-Dinitrotoluene | 370 | |
| | 3-Nitroaniline | 940 | |
| | Acenaphthene | 370 | υ. |
| | | | |
| | | · ————— | · ——— ' |

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

JM200

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.:

SDG No.: JM199

Matrix: (soil/water) SOIL

Lab Sample ID: 835294

Sample wt/vol: 30.1 (g/mL) g

Lab File ID: GJ035294C64

Q

Level: (low/med) LOW

Date Received: 12/21/96

% Moisture: 12 decanted: (Y/N) N -- Date Extracted:12/23/96*

Concentrated Extract Volume: 500(uL) Date Analyzed: 12/30/96

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.5

| • | | CONCENTRATION UNITS: |
|---------|----------|-----------------------|
| CAS NO. | COMPOUND | (ug/L or ug/Kg) ug/Kg |

| | | · |
|----------------------------------------|--------------------|------------|
| 51-28-52,4-Dinitrophenol | 940 | (ט |
| 100-02-74-Nitrophenol | 940 | |
| 132-64-9Dibenzofuran | — 370 370 | 1 |
| 121-14-22,4-Dinitrotoluene | — 370 370 | |
| S4-66-2Diethylphthalate | — 370 150 | |
| 7005-72-34-Chlorophenyl-phenylether | [| 1 |
| 86-73-7Fluorene | 370 370 | |
| 100-01-64-Nitroaniline | 940 | |
| | - 940 940 | |
| 534-52-14,6-Dinitro-2-methylphenol | - | |
| 86-30-6N-nitrosodiphenylamine (1) | 370 | } |
| 101-55-34-Sromophenyl-phenylether_ | 370 | , - |
| 118-74-1Hexachlorobenzene | _ 370 | 1 - |
| 37-86-5Pentachlorophenol | 940 | |
| 85-01-8Phenanthrene | 370 | |
| 120-12-7Anthracene | 370 | i i |
| 86-74-8Carbazole | 370 | U |
| 84-74-2Di-n-butylphthalate | 370 |) |
| 206-44-0Fluoranthene | 370 | U |
| 129-00-0Pyrene | 370 | Ū |
| 85-68-7Butylbenzylphthalate | 370 | U |
| · 91-94-13,3'-Dichlorobenzidine | 370 | w) |
| 56-55-3Benzo(a)anthracene | 370 | U |
| 218-01-9Chrysene | 370 | ע / |
| 117-81-7bis(2-Ethylhexyl)phthalate | 82 | J √ |
| 117-84-0Di-n-octvlohthalate | | υ |
| 205-99-2Benzo (b) fluoranthene | - 370 | |
| 207-08-9Benzo(k) fluoranthene | 370 | |
| 50-32-8Benzo (a) pyrene | 370 | t - |
| 193-39-5Indeno(1,2,3-cd) pyrene | 370 | |
| 53-70-3Dibenzo(a,h)anthracene | - 370 | 1 |
| 191-24-2Benzo(g,h,i) perylene | 370 | |
| 252 52 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 | - | |
| | | l |

(1) - Cannot be separated from Diphenylamine

OLM03.0

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

JM200

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM199

Matrix: (soil/water) SOIL

Lab Sample ID: 835294

Sample wt/vol: 30.1 (g/mL) g

Lab File ID: GJ035294C64

Level: (low/med) LOW

Date Received: 12/21/96

% Moisture: 12 decanted: (Y/N) N Date Extracted:12/23/96

Concentrated Extract Volume: 500 (uL) Date Analyzed: 12/30/96

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.5

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

Number TICs found: 30

COMPOUND NAME EST. CONC. RTCAS NUMBER ALDOL (BC) 37001 HEXADECANOIC ACID 14.92 300 NJ. 2. 57-10-3 320 Jル UNKNOWN 16.09 3. UNKNOWN 16.13 340 J 16.22 .650 J UNKNOWN 5. UNKNOWN 16.34 640 J 16.40 350 J TRIMETHYLPHENANTHRENE 7. UNKNOWN 16.66 660 J 8. 16.76 630 J UNKNOWN 9. 16.83 870 J 10. UNKNOWN TRIMETHYLPHENANTHRENE 470 J 16.91 11. 17.05 960 J 12. UNKNOWN 13. 17.12 310 J UNKNOWN 17.18 390 J UNKNOWN 14. 17.28 540 J UNKNOWN 15. 17.39 16. UNKNOWN 410 J 17.48 290 J 17. UNKNOWN UNKNOWN 17.53 18. 520 J 19.29 19. UNKNOWN 420 J 20. INKNOWN 19.60 460 J 19.86 380 J 21. UNKNOWN 440 J UNKNOWN 19.94 22. 20.00 380 J UNKNOWN 23. 20.17 520 J 24. UNKNOWN 20.51 25. UNKNOWN 380 J 20.64 26. UNKNOWN 340 J 27. UNKNOWN 20.82 390 J UNKNOWN 20.93 360 J 28. 29. 21.06 290 J **UNKNOWN** 21.35 UNKNOWN 440 JN 30.

> ecology and environmenI_MO3.0 and environment

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

JM204

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM199

Matrix: (soil/water) SOIL

Lab Sample ID: 835298

Sample wt/vol: 30.0 (g/mL) g Lab File ID: GH035298A64

Level: (low/med) LOW

Date Received: 12/21/96

% Moisture: 14 decanted: (Y/N) N

Date Extracted:12/23/96

Concentrated Extract Volume: 500(uL) Date Analyzed: 12/29/96

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.5

| CAS NO. | COMPOUND | (ug/L or ug/Kg) ug/Kg | Q |
|---------|----------|-----------------------|---|
| | | | |

| | | 1 |
|-----------------------------------|-------------|-------|
| 108-95-2Phenol | 380 | ט |
| 111-44-4bis(2-Chloroethyl)ether | 380 | ט |
| 95-57-82-Chlorophenol | 380 | U |
| 541-73-11,3-Dichlorobenzene | . 380 | U |
| 106-46-71,4-Dichlorobenzene | 380 | |
| 95-50-11,2-Dichlorobenzene | 380 | 1 1 |
| 95-48-72-Methylphenol | 380 | 1 |
| 108-60-12,2'-oxybis(1-Chloroprop | | |
| 106-44-54-Methylphenol | 380 | 1 |
| 621-64-7N-Nitroso-di-n-propylami | i | |
| 67-72-1Hexachloroethane | 380 | |
| 98-95-3Nitrobenzene | 380 | 1 1 |
| 78-59-1Isophorone | 380 | |
| 88-75-52-Nitrophenol | 380 | 1 |
| 105-67-92,4-Dimethylphenol . | 380 | |
| 111-91-1bis(2-Chloroethoxy) metha | | 1 6 |
| 120-83-22,4-Dichlorophenol | 380 | 1 - 1 |
| 120-82-11,2,4-Trichlorobenzene | 380 | 1 1 |
| 91-20-3Naphthalene | 380 | 1 1 |
| 106-47-84-Chloroaniline | 380 | 1 ' 1 |
| 87-68-3Hexachlorobutadiene | 380 | 1 |
| 59-50-74-Chloro-3-methylphenol | 380 | 1 : |
| 91-57-62-Methylnaphthalene | 380 | |
| 77-47-4Hexachlorocyclopentadien | | |
| SS-06-22,4,5-Trichlorophenol | 380 | 1 (|
| 95-95-42,4,5-Trichlorophenol | | 1 |
| 91-58-72-Chloronaphthalene | | 1 1 |
| 38-74-42-Nitroaniliné | 960 | 1 1 |
| 131-11-3Dimethylphthalate | 380 | |
| 208-96-8Acenaphthylene | 380 | 1 |
| 506-20-22,6-Dinitrotoluene | | 1 1 |
| 99-09-23-Nitroaniline | 960 | 1 |
| 83-32-9Acenaphthene | 380 | 1 ; |
| 03-35-3Wenabuchene | | |
| | | 1 |

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

JM204

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.:

SDG No.: JM199

Matrix: (soil/water) SOIL

Lab Sample ID: 835298

Sample wt/vol: 30.0 (g/mL) g

Lab File ID: GH035298A64

Level: (low/med) LOW

Date Received: 12/21/96

% Moisture: 14 decanted: (Y/N) N Date Extracted: 12/23/96

Concentrated Extract Volume: 500 (uL) Date Analyzed: 12/29/96

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.5

| • | | CONCENTRATION UNITS: | |
|---------|----------|-----------------------|---|
| CAS NO. | COMPOUND | (ug/L or ug/Kg) ug/Kg | Q |

| | | | · | |
|----------|----------------------------|-------|-----|----------|
| 51-28-5 | 2,4-Dinitrophenol | 960 | ע ט | |
| | 4-Nitrophenol | 960 | | ł |
| | Dibenzofuran | . 380 | _ | - |
| | 2,4-Dinitrotoluene | 380 | 1 | |
| | Diethylphthalate | 180 | 1 | 1 |
| | 4-Chlorophenyl-phenylether | 380 | | |
| 86-73-7 | | 380 | 1 | l |
| | 4-Nitroaniline | 960 | Į. | [|
| | 4,6-Dinitro-2-methylphenol | 960 | | |
| | N-nitrosodiphenylamine (1) | 380 | ľ | |
| | 4-Bromophenyl-phenylether | 380 | 1 |] |
| | Hexachlorobenzene | 380 | ľ | |
| | Pentachlorophenol | 960 | | |
| | Phenanthrene | 380 | 1 | 1 |
| | Anthracene | 380 | 3 | 1 |
| | Carbazole | 380 | 3 | } |
| | Di-n-butvlphthalate | 66 | | <i>.</i> |
| | Fluoranthene | 100 | | |
| 129-00-0 | | 71 | J / | |
| | Butvlbenzylphthalate | 380 | - | |
| | 3,3'-Dichlorobenzidine | 380 | | [|
| | Benzo(a) anthracene | 380 | | , |
| 218-01-9 | | 52 | | |
| | bis(2-Ethylhexyl)phthalate | 270 | | ľ. |
| | Dis(2-EthyThexyT)phthalate | 380 | 1 | |
| | Benzo(b) fluoranthene | | XJ | / |
| | Benzo(b) fluoranthene | | | |
| | | 1 | ŢŢ | , |
| | Benzo(a) pyrene | 380 | - | |
| | Indeno (1, 2, 3-cd) pyrene | 26 | |] |
| | Dibenzo (a, h) anthracene | 380 | I. | <u> </u> |
| 191-24-2 | Benzo(g,h,i)perylene | 380 | U | 1 |
| | | 1 | l | ļ. |

(1) - Cannot be separated from Diphenylamine

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

JM204

Lab Name: COMPUCHEN ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.:

SDG No.: JM199

Matrix: (soil/water) SOIL

Lab Sample ID: 835298

Sample wt/vol: 30.0 (g/mL) g

Lab File ID: GH035298A64

Level: (low/med) LOW

Date Received: 12/21/96

% Moisture: 14 decanted: (Y/N) N Date Extracted:12/23/96

Concentrated Extract Volume: 500(uL)

Date Analyzed: 12/29/96

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.5

Number TICs found: 30

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

| | } | 1 | | I |
|-----------------------------------------|-----------------------------------------------------------|-------|-----------------------------------------|--------|
| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
| ======================================= | | | ======================================= | ====7) |
| 1. | 1202 (38) | 4.49 | 6499 | JHB K |
| 2. | UNKNOWN | 5.75 | 100 | JY |
| 3. | UNKNOWN | 12.94 | . 220 | J] |
| 4. | UNKNOWN PHTHALATE | 14.28 | 110 | J |
| 5. | UNKNOWN | 14.41 | 120 | J |
| 5. | UNKNOWN CARBOXYLIC ACID | 14.92 | 410 | J |
| 7. | מייסות:אינו | 15.09 | 640 | J |
| S. | UNKNOWN | 15.29 | . 4000 | |
| 9. | UNKNOWN ' | 15.62 | 200 | |
| 10. | UNKNOWN ALCOHOL | 15.75 | 470 | . , , |
| 11. | UNINOWN | 16.10 | 390 | 1 |
| 12. | UNICOCINU . | 16.21 | 200 | 1 1 |
| 13. | UNKNOVN | 16.36 | 1200 | 1/ |
| 14. 55591-16-7 | S-INDACENE-1,7-DIONE, 2,3,5, | 17.16 | 140 | |
| 15. | UNEMOWN | 17.28 | 140 | |
| 16. | UNKNOWN | 17.40 | 150 | 1 1 |
| 17. | UNKNOWN - | 17.57 | 24000 | |
| 18. | UNINOWN ALDEHYDE | 17.78 | 100 | |
| 19. | UNKNOWN | 17.94 | . 120 | |
| 20. | UNKNOWN | 18.13 | 820 | |
| 21. | UNKNOWN ALDEHYDE | 18.86 | l l | J |
| 22. | UNKNOWN AMIDE | 19.59 | 360 | - 1 |
| 23. | UNKNOWN | 20.01 | 230 | 1 1 |
| 24. | UNKNOWN | 20.22 | 120 | ار |
| 25. | UNKNOWN ALDEHYDE | 20.88 | 290 | .7 |
| 26. | UNKNOWN ALCOHOL | 21.27 | . 430 | |
| 27. | UNKNOWN | 21.91 | 4 | J |
| 23. | UNKNOWN | 22.41 | 160 | 1 |
| 29. | UNITIONN | 23.18 | 840 | |
| 30. | UNKNOWN | 24.52 | 340 | 1 / 1 |
|] , , | | 22.52 | , 540 | 5 \$ |
| İ | | | | |

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

JM205

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM199

Matrix: (soil/water) SOIL

Lab Sample ID: 835299

Sample wt/vol:

30.1 (g/mL) g

Lab File ID: GH035299A64

Level: (low/med) LOW

Date Received: 12/21/96

% Moisture: 9 decanted: (Y/N) N Date Extracted:12/23/96

Concentrated Extract Volume: 500(uL) Date Analyzed: 12/29/96

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.6

| | • | CONCENTRATION UNITS: | |
|---------|----------|-----------------------|---|
| CAS NO. | COMPOUND | (ug/L or ug/Kg) ug/Kg | Q |

| | , | |
|--------------------------------------|--------------|---------------|
| 108-95-2Phenol | 360 | U |
| 111-44-4bis(2-Chloroethyl)ether | 360 | |
| 95-57-82-Chlorophenol | 360 | |
| 541-73-11,3-Dichlorobenzene | . 360 | ט |
| 105-46-71,4-Dichlorobenzene | 360 | υ. |
| 95-50-11,2-Dichlorobenzene | 360 | U |
| 95-48-72-Methylphenol | 360 | U |
| 108-60-12,2'-oxybis(1-Chloropropane) | 360 | U |
| 106-44-54-Methylphenol | 360 | U |
| 621-64-7N-Nitroso-di-n-propylamine | 360 | ប |
| 67-72-1Hexachloroethane | 360 | U |
| 98-95-3Nitrobenzene | 360 | Ū |
| 78-59-1Isophorone | 360 | U |
| 88-75-52-Nitrophenol | 360 | Ū |
| 105-67-92,4-Dimethylphenol | 360 | U |
| 111-91-1bis (2-Chloroethoxy) methane | 360 | U |
| 120-83-22,4-Dichlorophenol | 360 | ប |
| 120-82-11,2,4-Trichlorobenzene | 360 | ט ' |
| 91-20-3Naphthalene | 360 | υ i |
| 106-47-84-Chloroaniline | 360 | U |
| 87-68-3Hexachlorobutadiene | 360 | U |
| 59-50-74-Chloro-3-methylphenol | 360 | ប |
| 91-57-62-Methylnaphthalene | 360 | Ŭ · |
| 77-47-4Hexachlorocyclopentadiene | 360 | U · |
| 88-06-22,4,6-Trichlorophenol | 360 | Ŭ |
| 95-95-42,4,5-Trichlorophenol | 910 | U |
| 91-58-72-Chloronaphthalene | 360 | ប |
| 88-74-42-Nitroaniline | 910 | Ū |
| 131-11-3Dimethylphthalate | 360 | U |
| 208-96-8Acenaphthylene | 360 | Ŭ |
| 606-20-22,6-Dinitrotoluene | . 360 | U |
| 99-09-23-Nitroaniline | 910 | บ |
| 83-32-9Acenaphthene | 360 | υ, |
| | | |
| | | · |

JM205

Lab Name: COMPUCHEM ENV. CORP.

Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.:

SDG No.: JM199

Matrix: (soil/water) SOIL

Lab Sample ID: 835299

Sample wt/vol: 30.1 (g/mL) g

Lab File ID:

CONCENTRATION UNITS:

(ug/L or ug/Kg) ug/Kg

GH035299A64

Level: (low/med) LOW

Date Received: 12/21/96

% Moisture: 9 decanted: (Y/N) N

Date Extracted: 12/23/96

Concentrated Extract Volume: 500(uL)

CAS NO.

Date Analyzed: 12/29/96

Injection Volume:

2.0(吐)

COMPOUND

53-70-3-----Dibenzo(a,h)anthracene

(1) - Cannot be separated from Diphenylamine

191-24-2-----Benzo(q,h,i)perylene

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.6

| 51-28-5 | 2,4-Dinitrophenol | 910 | لانتا | |
|----------|----------------------------|-----|-------|---|
| | 4-Nitrophenol | 910 | l. | |
| | Dibenzofuran | 360 | 1 | |
| | 2,4-Dinitrotoluene | 360 | 1 | / |
| | Diethylphthalate | 120 | | |
| | 4-Chlorophenyl-phenylether | 360 | 1 |] |
| | Fluorene | 360 | | ŀ |
| | 4-Nitroaniline | 910 | | } |
| = 1 | 4,6-Dinitro-2-methylphenol | 910 | | } |
| | N-nitrosodiphenylamine (1) | 360 | | |
| | 4-Bromophenyl-phenylether | 360 | | |
| | Hexachlorobenzene | 360 | _ | |
| | Pentachlorophenol | 910 | | |
| | Phenanthrene | 360 | | / |
| | Anthracene | 360 | | |
| | Carbazole | 360 | | Y |
| | Di-n-butvlphthalate | 63 | | |
| | Fluoranthene | 360 | | |
| 129-00-0 | | 360 | - 1 | |
| | Butvlbenzylphthalate | 360 | | |
| | 3,3'-Dichlorobenzidine | 360 | | / |
| | Benzo(a)anthracene | 360 | | |
| 218-01-9 | | 360 | Ū d | |
| | bis(2-Ethylhexyl)phthalate | 58 | / 1 | |
| | Di-n-octylphthalate | 360 | | |
| | Benzo(b) fluoranthene | 360 | | |
| | Benzo(k)fluoranthene | 360 | | |
| | Benzo (a) pyrene | 360 | - | |
| | Indeno (1, 2, 3-cd) pyrene | 360 | | |
| | | | | |

OLM03.0

360 U

360 U

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

JM205

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.:

SDG No.: JM199

Matrix: (soil/water) SOIL

Lab Sample ID: 835299

Sample wt/vol:

% Moisture: 9

30.1 (g/mL) g

Lab File ID:

GH035299A64

Level: (low/med) LOW

Date Received: 12/21/96

decanted: (Y/N) N

Date Extracted:12/23/96

Concentrated Extract Volume:

500(uL) Date Analyzed: 12/29/96

Injection Volume:

2.0(uL)

Dilution Factor: 1.0

GPC Cleanup:

(Y/N) Y

pH: 6.6

Number TICs found: 25

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

| | | | | |
|-----------------------------------------|-----------------------------------------|-------------|-----------------------------------------|----------------------|
| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
| ======================================= | ======================================= | ======= | ======================================= | ===== |
| 1. | PLDOL (BC) | | 5700 | HEAT! |
| 2. | FERTIONIA (BC) | | | 103 # |
| 3. | UNKNOWN PHTHALATE | 14.28 | 110 | |
| 4. | UNKNOWN ALCOHOL | 14.41 | . 120 | J |
| 5. 57-10-3 | HEXADECANOIC ACID | 14.91 | 290 | NJ |
| 6. _. | UNKNOWN. | 15.09 | . 620 | J \ |
| 7. | UNKNOWN | 15.38 | 7.9 | J |
| S. | UNKNOWN ALCOHOL | 15.75 | 1000 | J |
| 9. | UNKNOWN | 16.10 | 500 | J |
| 10. | NACACAM | 16.21 | , 410 | J |
| 11. | NYNOM | 16.30 | 160 | J |
| 12. | MYONYM | 16.36 | 2500 | J |
| 13. | UNKNOWN | 17.05 | 84 | J |
| 14. | UNKNOWN | 17.16 | 140 | J |
| 15. | UNKNOWN | 17.39 | | J |
| 16. | UNKNOWN | 17.53 | ·470 | J |
| 17. | UNKNOWN ALCOHOL - | 18.13 | | J |
| 18. | UNINOWN ALCOHOL | 19.18 | 170 | J |
| 1 | UNKNOWN AMIDE | 19.59 | 390 | J |
| - | UNKNOWN . | 21.27 | 110 | J |
| 21. | UNKNOWN | 21.56 | 100 | J |
| 22. | UNKNOWN | 22.41 | 110 | 5 |
| | UNKNOWN | 23.19 | 320 | J |
| 24. | UNKNOWN | 23.85 | 90 | J |
| | UNKNOWN | 24.52 | 98 | J / |
| 25. | onia onic | 2 : . 32 | 70 | |
| 27. | | | | |
| 23. | | | | |
| 29. | | | | |
| 30. | | | | |
| J | | | | |
| . (| í | · · | | |

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

JM206 ontract: 68D50009

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM199

Matrix: (soil/water) SOIL Lab Sample ID: 835300

Sample wt/vol: 30.2 (g/mL) g Lab File ID: GJ035300C64

Level: (low/med) LOW Date Received: 12/21/96

% Moisture: 13- decanted: (Y/N) N Date Extracted: 12/23/96

Concentrated Extract Volume: 500(uL) Date Analyzed: 12/30/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.0

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/Kg Q

| | · | |
|--------------------------------------|-------|----------------|
| 108-95-2Phenol | 380 | U |
| 111-44-4bis(2-Chloroethyl)ether | 380 | 1 |
| 95-57-82-Chlorophenol | 380 | Ū |
| 541-73-11,3-Dichlorobenzene | 380 | |
| 105-46-71,4-Dichlorobenzene | 380 | 1 1 |
| 95-50-11,2-Dichlorobenzene | 380 | |
| 95-48-72-Methylphenol | 380 | 1 1 |
| 108-60-12,2'-oxybis(1-Chloropropane) | 380 | 1 1 |
| 106-44-54-Methylphenol | 380 | 1 1 |
| 521-64-7N-Nitroso-di-n-propylamine | 380 | 1 - 1 |
| 67-72-1Hexachloroethane | 380 | 1 1 |
| 98-95-3Nitrobenzene | 380 | ł ⁻ |
| 78-59-1Isophorone | 380 | ; · |
| 88-75-52-Nitrophenol | 380 | |
| 105-67-92,4-Dimethylphenol | 380 | i . |
| 111-91-1bis(2-Chloroethoxy) methane | 380 | |
| | | i 1 |
| 120-83-22,4-Dichlorophenol | 380 | i 1 |
| 120-82-11,2,4-Trichlorobenzene | 380 | 1 |
| 91-20-3Naphthalene | 380 | 1 |
| 106-47-S4-Chloroaniline | 380 | |
| 87-68-3Hexachlorobutadiene | 380 | |
| 59-50-74-Chloro-3-methylphenol | 380 | |
| 91-57-62-Methylnaphthalene | 380 | |
| 77-47-4Hexachlorocyclopentadiene | 380 | |
| 88-06-22,4,6-Trichlorophenol | 380 | - 1 |
| 95-95-42,4,5-Trichlorophenol | 950 | - 1 |
| 91-58-72-Chloronaphthalene | 380 | 1 |
| SS-74-42-Nitroaniline | 950 | 1 3 |
| 131-11-3Dimethylphthalate | 380 | U |
| 208-96-8Acenaphthylene | 380 | U |
| 506-20-22,6-Dinitrotoluene | 380 | ט |
| 99-09-23-Nitroaniline | . 950 | U |
| \$3-32-9Acenaphthene | 380 | ן ט |
| | | / |
| | | |

OLMO3.0

JM206

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.:

SDG No.: JM199

Matrix: (soil/water) SOIL

Lab Sample ID: 835300

Sample wt/vol:

30.2 (g/mL) g

Lab File ID: GJ035300C64

Q

Level: (low/med) LOW

Date Received: 12/21/96

% Moisture: 13

decanted: (Y/N) N

Date Extracted:12/23/96

Concentrated Extract Volume: 500 (uL)

Date Analyzed: 12/30/96

Injection Volume: 2.0(山)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.0

| | • | CONCENTRATION UNITS: | |
|---------|-----------|-------------------------------|--|
| CAS NO. | .COMPOUND | (ug/L or ug/Kg) ug/Kg \cdot | |

| | | | |
|-------------|------------------------------|-----------------------------------------|-------------|
| 51-28-5 | 2,4-Dinitrophenol | 950 | ן ט |
| | 4-Nitrophenol | 950 | บั |
| | Dibenzofuran | 380 | ען ען |
| 121-14-2 | 2,4-Dinitrotoluene | 380 | ע / |
| | Diethylphthalate | 230 | |
| | 4-Chlorophenyl-phenylether | 380 | 4 |
| | Fluorene | 380 | U |
| 100-01-6 | 4-Nitroaniline | 950 | lu l |
| 534-52-1 | 4,6-Dinitro-2-methylphenol | 950 | ็บ |
| | N-nitrosodiphenylamine (1) | 380 | U |
| | 4-Bromophenyl-phenylether | 380 | ט |
| | Hexachlorobenzene | 380 | U. |
| 87-86-5 | Pentachlorophenol | 950 | ט |
| | Phenanthrene | 380 | טו |
| | Anthracene | 380 | 1 |
| 86-74-8 | Carbazole | 380 | U |
| | Di-n-butylphthalate | 380 | U |
| | Fluoranthene | 380 | 1 |
| 129-00-0 | | 380 | J |
| | Butylbenzylphthalate | 380 | บ |
| 91-94-1 | 3,3'-Dichlorobenzidine | 380 | |
| | Benzo (a) anthracene | 380 | ע ע |
| 218-01-9 | | 380 | |
| | bis(2-Ethylhexyl)phthalate | 53 | |
| 117-84-0 | Di-n-octylphthalate | 380 | ט |
| 205-99-2 | Benzo(b) fluoranthene | 380 | ט |
| | Benzo(k)fluoranthene | 380 | ט |
| | Benzo(a)pyrene | 380 | U |
| | Indeno(1,2,3-cd)pyrene | 380 | lυ |
| 53-70-3 | Dibenzo(a,h)anthracene | 380 | 1 |
| | Benzo(g,h,i)perylene | 380 | |
| | | | ļ |
| - Cannot be | separated from Diphenylamine | , ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | / |

FORM I SV-2

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

JM205

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.:

SDG No.: JM199

Matrix: (soil/water) SOIL

Lab Sample ID: 835300

Sample wt/vol: 30.2 (g/mL) g

Lab File ID: GJ035300C64

Level: (low/med) LOW

Date Received: 12/21/96

% Moisture: 13 decanted: (Y/N) N

Date Extracted:12/23/96

Concentrated Extract Volume: 500(uL)

Date Analyzed: 12/30/96

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.0

Number TICs found: 11

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|-----------------|--------------------------|-------------|-------------|---------|
| 1. | ALDOL (BC) | | 5700 | ===== |
| 2. | UNIQIOMI (BC) | - 4.71 | 100 | |
| 3. | UNKNOWN | 14.42 | . 77 | 12 (JE) |
| 3 . | UNKNOWN CARBOXYLIC ACID | 14.91 | 120 | J |
| 5. | UNKNOWN | 15.09 | 410 | J J |
| 6 | UNKNOWN. | 15.78 | 110 | J |
| 7. | UNKNOWN | 16.11 | 110 | J |
| 8. | UNKNOWN | 16.36 | . 81 | J |
| 9. | UNKNOWN | 17.15 | 140 | 1 1 |
| 10. | UNKNOWN | 17.52 | 210 | J J |
| 11. | UNKNOWN AMIDE | 19.59 | | [j \ |
| 12. | ONATOWN APPLDE | 19.59 | 230 | JA |
| 13. | | - | | |
| 14. | | - | | |
| 15. | | - | | |
| 16. | | - | | |
| 17. | | - | | |
| 18. | _ | - | | |
| 19. | | - | | |
| 20. | | - | | |
| 21. | - | - | | |
| 22. | | -[| | |
| 23. | _ | - | | |
| 23. 24. | - | - | | |
| 25. | _ | | | |
| 2 ~ | | - | | |
| 27. | | - | [| |
| 28. | _ | - | | I |
| 28. 29. | - | - [| | |
| 30. | | - | | |
| 30 | _ | - | | |
| | _ | | | |

JM207

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU . Case No.: 25253 SAS No.:

SDG No.: JM199

Matrix: (soil/water) SOIL

Lab Sample ID: 835301

Sample wt/vol:

30.1 (g/mL) g

Lab File ID: GH035301A64

Level: (low/med) LOW

Date Received: 12/21/96

% Moisture: 13 decanted: (Y/N) N

Date Extracted: 12/23/96

Concentrated Extract Volume: 500 (uL) Date Analyzed: 12/29/96

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.5

CONCENTRATION UNITS: CAS NO. COMPOUND (ug/L or ug/Kg) ug/Kg

Q

| , <u></u> | , | , |
|--------------------------------------|--------------|------|
| 108-95-2Phenol | 380 | U |
| 111-44-4bis(2-Chloroethyl)ether | 380 | Ū |
| 95-57-82-Chlorophenol | 380 | |
| 541-73-11,3-Dichlorobenzene | 380 | 1 1 |
| 106-46-71,4-Dichlorobenzene | 380 | |
| 95-50-11,2-Dichlorobenzene | 380 | |
| 95-48-72-Methylphenol | | U |
| 108-60-12,2'-oxybis(1-Chloropropane) | 380 | tī l |
| 106-44-54-Methylphenol | . 380 | |
| 621-64-7N-Nitroso-di-n-propylamine | 380 | |
| 67-72-1Hexachloroethane | 380 | • |
| 98-95-3Nitrobenzene | 380 | 1 |
| 78-59-1Isophorone | 380 | |
| 88-75-52-Nitrophenol | 380 | |
| 105-67-92,4-Dimethylphenol | 380 | |
| 111-91-1bis(2-Chloroethoxy) methane | 380 | |
| 120-83-22,4-Dichlorophenol | 380 | |
| 120-82-11,2,4-Trichlorobenzene | 380 | |
| 91-20-3Naphthalene | 380 | |
| 106-47-84-Chloroaniline | 380 | |
| 87-68-3Hexachlorobutadiene | 380 | |
| 59-50-74-Chloro-3-methylphenol | 380 | |
| 91-57-62-Methylnaphthalene | 380 | 1 |
| 77-47-4Hexachlorocyclopentadiene | 380 | |
| 88-06-22,4,6-Trichlorophenol | 380 | |
| 95-95-42,4,5-Trichlorophenol | 950 | T . |
| 91-58-72-Chloronaphthalene | 380 | |
| 88-74-42-Nitroaniline | 950 | |
| 131-11-3Dimethylphthalate | 380 | 1 |
| 208-96-8Acenaphthylene | 380 | |
| 606-20-22,6-Dinitrotoluene | 380 | ľ |
| 99-09-23-Nitroaniline | 950 | 1 |
| 83-32-9Acenaphthene |) i | Ū / |
| | | |
| | · | |

JM207

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM199

Matrix: (soil/water) SOIL

Lab Sample ID: 835301

Sample wt/vol: 30.1 (g/mL) g

Lab File ID: GH035301A64

Level: (low/med) LOW

Date Received: 12/21/96

% Moisture: 13 decanted: (Y/N) N Date Extracted: 12/23/96

Concentrated Extract Volume: 500(uL) Date Analyzed: 12/29/96

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.5

CONCENTRATION UNITS: CAS NO. COMPOUND (ug/L or ug/Kg) ug/Kg

| | | I |
|---------------------------------------------|----------|----------|
| 51-28-52,4-Dinitrophenol | ل تا 950 | |
| 100-02-74-Nitrophenol | 950 U | |
| 132-64-9Dibenzofuran | 380 U | / |
| 121-14-22,4-Dinitrotoluene | J 08E ✓ | |
| 84-66-2Diethylphthalate | 180 J ₽ | |
| 7005-72-34-Chlorophenyl-phenylether | 380 U | |
| 86-73-7Fluorene | . 380 U | |
| 100-01-64-Nitroaniline | لتا 950 | |
| 534-52-14,6-Dinitro-2-methylphenol | 950 U | \ |
| 86-30-6N-nitrosodiphenylamine (1) | 1 380 U | Ì |
| 101-55-34-Bromophenyl-phenylether | 380 U | Ė |
| 118-74-1Hexachlorobenzene | 380 U | } |
| 87-86-5Pentachlorophenol | 950 U | |
| S5-01-SPhenanthrene | 380 U | |
| 120-12-7Anthracene | 380 U | |
| 86-74-8Carbazole | 380 U / | Y |
| 84-74-2Di-n-butylphthalate | 53 J 🗸 | |
| 206-44-0Fluoranthene | 380 U | } |
| 129-00-0Pvrene | 380 U | |
| 85-68-7Butylbenzylphthalate | 380 U | ļ |
| 91-94-13,3'-Dichlorobenzidine | 380 U | / |
| 56-55-3Benzo(a)anthracene | 380 U | |
| 218-01-9Chrysene | 380 U / | ĺ |
| 117-81-7bis(2-Ethylhexyl)phthalate | 69 J / | Ì |
| 117-84-0Di-n-octylphthalate | 380 ∫Ū |] |
| 205-99-2Benzo(b)fluoranthene | 380 U | 1 |
| 207-08-9Benzo(k)fluoranthene | 380 U | |
| 50-32-8Benzo(a)pyrene | 380 U |] |
| 193-39-5Indeno(1,2,3-cd)pyrene | 380 U | |
| 53-70-3Dibenzo(a,h)anthracene | .380 D | |
| 191-24-2Benzo(g,h,i)perylene | 380 U | |
| | | |
| 1) - Cannot be separated from Diphenylamine | 7 | • |

(1) - Cannot be separated from Diphenylamine

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

JM207

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM199

Matrix: (soil/water) SOIL

Lab Sample ID: 835301

Sample wt/vol:

30.1 (g/mL) g

Lab File ID:

GH035301A64

Level: (low/med) LOW

Date Received: 12/21/96

% Moisture: 13 decanted: (Y/N) N

Date Extracted:12/23/96

Concentrated Extract Volume: 500 (uL)

Date Analyzed: 12/29/96

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.5

Number TICs found: 18

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

| CAS NUMBER | COMPOUND NAME | RT | DOT COMO | |
|------------|-------------------|----------------------------------------|---------------|------------|
| CAS NOMBER | | == =================================== | EST. CONC. | Q ===== |
| 1. | ALDOL (BC) | 4.49 | 4900 | JAB R |
| 2. | UNIQUOVA (BC) | 4.72 | | JB 2 |
| 3. | UNKNOWN | 14.41 | 87 | Jy M |
| 4. 57-10-3 | HEXADECANOIC ACID | 14.91 | 330 | |
| 5. | UNKNOWN | 15.09 | 460 | |
| 6. | UNKNOWN | 16.10 | 270 | 1 1 |
| 7. | UNKNOWN . | 16.36 | 250 | |
| 8. | UNKNOWN | 17.05 | 100 | |
| 9. | UNKNOWN | 17.16 | 120 | J |
| 10. | UNKNOWN | 17.40 | 120 | J |
| 11. | UNKNOWN | 17.53 | 370 | J |
| 12. | UNKNOWN ALCOHOL | 18.13 | 330 | J |
| 13. | UNKNOWN | 19.17 | 250 | J |
| 14. | UNKNOWN AMIDE | 19.59 | 240 | J |
| 15. | UNKNOWN ALDEHYDE | 19.85 | 95 | J |
| 16. | UNKNOWN | 21.28 | 120 | |
| 17. | UNKNOWN | 21.62 | 100 | 2 5 |
| 18. | UNKNOWN | 23.19 | 520 | 1/ |
| 19. | | | 220 | |
| 20. | | | | |
| 21. | - | | | |
| 22. | | - | | |
| 23. | | - | , | |
| 24. | | | | |
| 25. | | | | |
| 26 | | - | | |
| 27. | | - | | |
| 28. | | -[] | | |
| 29. | | | | |
| 30. | | | | |
| JU | _ | _ | | |
| | | !! | | |

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

JM208

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM199

Lab Sample ID: 835302 Matrix: (soil/water) SOIL

Sample wt/vol: $30.2 (g/\pi L) g$ Lab File ID: GH035302A64

Date Received: 12/21/96 Level: (low/med) LOW

% Moisture: 12 decanted: (Y/N) N Daté Extracted: 12/23/96

Concentrated Extract Volume: 500(uL) Date Analyzed: 12/29/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.1

CONCENTRATION UNITS: CAS NO. COMPOUND (ug/L or ug/Kg) ug/Kg

| , | | | · · · · · |
|----------|------------------------------|-------|-----------|
| 108-95-2 | Phenol | 370 | TT |
| | bis(2-Chloroethyl)ether | 370 | I . |
| | 2-Chlorophenol | 370 | 1 |
| | 1,3-Dichlorobenzene | 370 | |
| | 1,4-Dichlorobenzene | . 370 | 1 |
| | 1,2-Dichlorobenzene | 370 | 1 |
| | 2-Nethylphenol | . 370 | t |
| | 2,2'-oxvbis(1-Chloropropane) | 370 | |
| | 4-Methylphenol | 370 | |
| | N-Nitroso-di-n-propylamine | 370 | |
| | Hexachloroethane | 370 | |
| | Nitrobenzene | 370 | |
| | Isophorone | 370 | |
| | 2-Nitrophenol | 370 | |
| | 2,4-Dimethylphenol | 370 | - |
| | bis(2-Chloroethoxy)methane | 370 | i |
| | 2,4-Dichlorophenol | . 370 | |
| | 1,2,4-Trichlorobenzene | 370 | |
| | Naphthalene | 370 | |
| | 4-Chloroaniline | 370 | - |
| | Hexachlorobutadiene | 370 | - |
| | 4-Chloro-3-methylphenol | 370 | _ |
| | 2-Methylnaphthalene | 370 | - |
| | Hexachlorocyclopentadiene | 370 | |
| | 2,4,6-Trichlorophenol | 370 | |
| | 2,4,5-Trichlorophenol | 940 | - |
| | 2-Chloronaphthalene | 370 | |
| | 2-Nitroaniline | | |
| | Dimethylphthalate | 370 | บ |
| | Acenaphthylene | | |
| | 2,6-Dinitrotoluene | | |
| | 3-Nitroaniline | 940 | U |
| | Acenaphthene | 370 | |
| | - | | |

JM208

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM199

Matrix: (soil/water) SOIL

Lab Sample ID: 835302

Lab File ID: GH035302A64

Sample wt/vol:

Level: (low/med) LOW

30.2 (g/ாட்) g

Date Received: 12/21/96

% Moisture: 12 decanted: (Y/N) N Date Extracted:12/23/96

Concentrated Extract Volume: 500 (uL) Date Analyzed: 12/29/96

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.1

CONCENTRATION UNITS: CAS NO. COMPOUND (ug/L or ug/Kg) ug/Kg

| 940 U 1 | |
|---------|-------------------------|
| 940 U | 1 |
| 370 U | 1 |
| 370 U | 1, |
| 160 J | |
| 370 0 | |
| 370 Ü | |
| 940 UJ | - |
| 940 U | 1 |
| 370 U | İ |
| | |
| 370 U | - |
| 370 U | . |
| 940 U | 1 |
| 370 U | |
| 370 U | |
| 370 U | X |
| 49 J / | |
| 370 U | |
| 370 U | |
| 370 U | } |
| لتا 370 | 1 |
| 370 U | V |
| 370 U | 1 |
| 47 J | |
| 370 Ū | ļ |
| 370 U | |
| 370 U | - |
| 370 U | |
| 1 | |
| | 1. |
| | 1. |
| 3,0 0 | |
| | 370 U 370 U 370 U |

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

JM208

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM199

Matrix: (soil/water) SOIL

Sample wt/vol: 30.2 (g/mL) g

Lab File ID: GH035302A64

Level: (low/med) LOW

Date Received: 12/21/96

% Moisture: 12 decanted: (Y/N) N Date Extracted: 12/23/96

Lab Sample ID: 835302

Concentrated Extract Volume: 500 (uL) Date Analyzed: 12/29/96

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.1

Number TICs found: 27

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|------------|-------------------|-------|------------|----------|
| 1. | ALBOL (DC) | 4.48 | 4100 | TAD |
| 2. | UNKNOWN PHTHALATE | 14.28 | 87 | JN |
| 3. | איוסאאען | 14.41 | 120 | / |
| 4. 57-10-3 | HEXADECANOIC ACID | 14.91 | 260 | ľ |
| 5. | UNIONIN | 15.09 | 550 | JI |
| ნ. | UNKNOWN ALCOHOL | 15.75 | 190 | J |
| 7. | UNIZVOWN | 16.10 | 210 | J |
| S. | UNKNOWN | 16.36 | 530 | J |
| 9. | UNIZVOWN | 16.76 | 100 | J |
| 10. | UNIZNOWN | 17.04 | 140 | J |
| 11. | UNKNOWN | 17.16 | 140 | J |
| 12. | UNKNOWN | 17.40 | 150 | J |
| 13. | ロルドグのバグ | 17.53 | 400 | J |
| 14. | UNKNOWN ALCOHOL | 18.13 | . 490 | J |
| 15. | UNKNOWN ALDEHYDE | 18.84 | 130 | J |
| 16. | UNKNOWN AMIDE | 19.59 | 380 | J |
| 17. | UNKNOWN ALDEHYDE | 19.85 | 160 | J |
| 18. | UNKNOWN | 20.15 | 130 | J |
| 19. | UNKNOWN ALDEHYDE | 20.88 | 91 | J |
| 20. | UNKNOWN | 21.28 | 190 | J |
| 21. | UNKNOWN | 22.42 | 88 | J |
| 22. | UNKNOWN | 23.19 | 690 | J |
| 23. | UNKNOWN | 23.35 | 120 | J |
| 24. | UNYMONN | 23.64 | 93 | J |
| 25. | UNKNOWN | 23.85 | 150 | J |
| 26. | UNKNOWN | 24.36 | 140 | J, |
| 27. | אטואאטעא | 24.52 | 290 | J∜ |
| 28 | | | | <u> </u> |
| 29. | | | | |
| 30 | | | | |
| | | | | |

OLM03.0

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

JM209

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.:

SDG No.: JM199

Matrix: (soil/water) SOIL

Lab Sample ID: 835303

Sample wt/vol:

30.0 (g/mī) g

Lab File ID: GH035303A64

Level: (low/med) LOW

Date Received: 12/21/96

% Moisture: 13 decanted: (Y/N) N

Date Extracted:12/23/96

Concentrated Extract Volume: 500(uL) Date Analyzed: 12/29/96

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.6

CAS NO. COMPOUND

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

| CAS NO. | COMPOSIVE (1197) OF 119 | | · · |
|----------|------------------------------|-------|-----|
| 108-95-2 | Phenol | 380 | U |
| | bis(2-Chloroethyl)ether | 380 | U |
| 95-57-8 | 2-Chlorophenol | 380 | U |
| | 1,3-Dichlorobenzene | 380 | U |
| | 1,4-Dichlorobenzene | 380 | U |
| | 1,2-Dichlorobenzene | 380 | |
| 95-48-7 | 2-Methylphenol | 380 | U |
| 108-60-1 | 2,2'-oxybis(1-Chloropropane) | 380 | U |
| 106-44-5 | 4-Methylphenol | 380 | U |
| 521-64-7 | N-Nitroso-di-n-propylamine | 380 | U |
| 57-72-1 | Hexachloroethane | 380 | U |
| 98-95-3 | Nitrobenzene | 380 | U |
| 78-59-1 | Isophorone | 380 | U |
| 88-75-5 | 2-Nitrophenol | 380 | U |
| 105-67-9 | 2,4-Dimethylphenol | 380 | U |
| | bis(2-Chloroethoxy) methane | 380 | U |
| | 2,4-Dichlorophenol | 380 | |
| 120-82-1 | 1,2,4-Trichlorobenzene | 380 | Ū |
| | Naphthalene | 380 | U |
| 106-47-8 | 4-Chloroaniline | 380 | U |
| 87-68-3 | Hexachlorobutadiene | 380 | U |
| 59-50-7 | 4-Chloro-3-methylphenol | 380 | U |
| | 2-Methylnaphthalene | 380 | Ū |
| | Hexachlorocyclopentadiene | 380 | U |
| | 2,4,6-Trichlorophenol | . 380 | U |
| 95-95-4 | 2,4,5-Trichlorophenol | 950 | U |
| 91-58-7 | 2-Chloronaphthalene | 380 | Ū |
| 33-74-4 | 2-Nitroaniline | 950 | U |
| 131-11-3 | Dimethylphthalate | 380 | U |
| 208-96-8 | Acenaphthylene | 380 | U |
| | 2,6-Dinitrotoluene | 380 | |
| | 3-Nitroaniline | 950 | |
| | Acenaphthene | 380 | |
| | | | |

JM209

Lab Name: COMPUCHEM ENV. CORP.

Contract: 68D50009

Lab Code: COMPU

Case No.: 25253 SAS No.:

SDG No.: JM199

Matrix: (soil/water) SOIL

Lab Sample ID: 835303

Sample wt/vol:

30.0 (g/mL) g

Lab File ID: GH035303A64

Level: (low/med) LOW Date Received: 12/21/96

% Moisture: 13 decanted: (Y/N) N

Date Extracted: 12/23/96

Concentrated Extract Volume:

500(址)

Date Analyzed: 12/29/96

Injection Volume: 2.0(uL)

CAS NO.

COMPOUND

Dilution Factor: 1.0

CONCENTRATION UNITS:

(ug/L or ug/Kg) ug/Kg

GPC Cleanup: (Y/N) Y

pH: 7.6

| , | | | |
|----------|----------------------------|-----|-----|
| 51-28-5 | 2,4-Dinitrophenol | 950 | וט |
| | 4-Nitrophenol | 950 | |
| | Dibenzofuran | 380 | |
| | 2,4-Dinitrotoluene | 380 | |
| | Diethylphthalate | 160 | |
| | 4-Chlorophenyl-phenylether | 380 | |
| | Fluorene | 380 | |
| | 4-Nitroaniline | 950 | 1 1 |
| | 4,6-Dinitro-2-methylphenol | 950 | 1 |
| | N-nitrosodiphenylamine (1) | 380 | |
| | 4-Bromophenyl-phenylether | 380 | |
| | Hexachlorobenzene | 380 | - |
| | Pentachlorophenol | 950 | |
| | Phenanthrene | 380 | |
| | Anthracene | 380 | |
| | Carbazole | 380 | |
| | Di-n-butylphthalate | 380 | 1 |
| | Fluoranthene. | 380 | |
| 129-00-0 | | 380 | 1 |
| | Butylbenzylphthalate | 380 | |
| | 3,3'-Dichlorobenzidine | 380 | |
| | Benzo (a) anthracene | 380 | |
| | Chrysene | 380 | |
| | bis(2-Ethylhexyl)phthalate | 74 | |
| | Di-n-octylphthalate | 380 | |
| | Benzo(b) fluoranthene | 380 | |
| | Benzo(k) fluoranthene | 380 | |
| | Benzo(a) pyrene | 380 | - |
| | Indeno(1,2,3-cd)pyrene | 380 | 1 |
| 133-33-5 | indeno(1, 2, 3-cd) pyrene | 300 | |

(i) - Cannot be separated from Diphenylamine

53-70-3-----Dibenzo(a,h)anthracene

191-24-2----Benzo(g,h,i)perylene

380 U

380 U

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

JM209

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM199

Matrix: (soil/water) SOIL

Lab Sample ID: 835303

Sample wt/vol: 30.0 (g/mL) g

Lab File ID: GH035303A64

Level: (low/med) LOW

Date Received: 12/21/96

% Moisture: 13 decanted: (Y/N) N Date Extracted:12/23/96

Concentrated Extract Volume: 500(uL) Date Analyzed: 12/29/96

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.6

Number TICs found: 13

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---------------|-------------------------|-----------------|-------------|---------|
| 1. | ALDOL (PC) | 4.49 | 4800 | 1 / 1 |
| 2. | UNTIONI (BC) | 4.72 | 70 | UB A |
| 3. | UNKNOWN CARBOXYLIC ACID | 14.91 | 210 | |
| 4 | UNKNOWN | 15.09 | 99 | JĨ |
| 5. | UNKNOWN | 17.05 | 82 | J |
| 5. | UNKNOWN | 17.16 | 84 | 1 7 1 1 |
| 7. | UNKNOWN | 18.13 | 510 | J |
| 8. | UNKNOWN ALCOHOL | 19.18 | 290 | J |
| 9. | UNKNOWN AMIDE | 19.59 | 230 | J |
| 10. | UNKNOWN | 21.29 | 140 | J |
| 11. | UNKNOWN | 23.18 | 410 | 3 |
| 12. | UNKNOWN | 23.34 | 110 | J |
| 13. | UNKNOWN | 24.52 | | J V . |
| 14. | GINTIONIA | 24.52 | 120 | J V . |
| 75 | | - | | |
| 15 | | - | | [|
| 40. | | - | | |
| _ · · | | - | | |
| ±0. | | · | | |
| 19. | | - | | |
| 20. | | - | | |
| ~ | | - | | |
| 22. | | - | | |
| 23. | | - | | |
| in to | | . | | |
| 43. | | - | | |
| . <u> </u> | | - | | |
| 41. | | - | | |
| 20, | | . | | |
| 33. | | - | | |
| 30. | | . | | |
| | | . I l | | ll |

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

JM210

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM199

Matrix: (soil/water) SOIL Lab Sample ID: 835372

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Sample wt/vol: 30.1 (g/mL) g Lab File ID: GH035372A64

Level: (low/mad) LOW Date Received: 12/21/96

% Moisture: - 0 decanted: (Y/N) N Date Extracted:12/23/96

Concentrated Extract Volume: 500(uL) Date Analyzed: 12/29/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: ____

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/Kg Q

| , <u></u> | | , , |
|----------------------------------|-------------|----------------|
| 108-95-2Phenol | 330 | U |
| 111-44-4bis(2-Chloroethyl)ethe | | , , |
| 95-57-82-Chlorophenol | 330 | 1 5 |
| 541-73-11,3-Dichlorobenzene | 330 | |
| 105-46-71,4-Dichlorobenzene | 330 | 1 - 1 |
| 95-50-11,2-Dichlorobenzene | 330 | 1 - |
| 95-48-72-Methylphenol | | _ |
| 108-60-12,2'-oxybis(1-Chloropr | | |
| 106-44-54-Methylphenol | 330 | 1 1 |
| 621-64-7N-Nitroso-di-n-propyla | | , , |
| 67-72-1Hexachloroethane | 330 | 1 - 1 |
| 98-95-3Nitrobenzene | 330 | |
| 78-59-1Isophorone | 330 | 1 . |
| 88-75-52-Nitrophenol | 330 | 1 1 |
| 105-67-92-k1ClopHenol | 330 | |
| 111-91-1bis (2-Chloroethoxy) met | | 1 1 |
| 120-83-22,4-Dichlorophenol | I | 1 1 |
| 120-83-22,4-Dichiorophenoi | 330 | J 1 |
| | | 1 1 |
| 91-20-3Naphthalene | | 1 1 |
| 106-47-84-Chloroaniline | 330 | 1 1 |
| 87-68-3Hexachlorobutadiene | 330 | 1 |
| 59-50-74-Chloro-3-methylpheno | | 1 |
| 91-57-62-Methylnaphthalene | | 1 - 1 |
| 77-47-4Hexachlorocyclopentadi | I | |
| 88-06-22,4,6-Trichlorophenol_ | 330 | 1 1 |
| 95-95-42,4,5-Trichlorophenol_ | 830 | 1 1 |
| 91-58-72-Chloronaphthalene | 330 | : - |
| 88-74-42-Nitroaniline | 830 | 1 1 |
| 131-11-3Dimethylphthalate | 330 | U |
| 208-96-8Acenaphthylene | 330 | U |
| 606-20-22,6-Dinitrotoluene | 330 | U |
| 99-09-23-Nitroaniline | 830 | U |
| 83-32-9Acenaphthene | 330 | U |
| - | | 1 1 |
| | | |

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

JM210

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM199

Matrix: (soil/water) SOIL

Lab Sample ID: 835372

Sample wt/vol:

30.1 (g/mL) g

Lab File ID: GH035372A64

Level: (low/med) LOW

Date Received: 12/21/96

% Moisture: 0 decanted: (Y/N) N

Date Extracted:12/23/96

Concentrated Extract Volume: 500(uL) Date Analyzed: 12/29/96

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: ____

CONCENTRATION UNITS: COMPOUND CAS NO. (ug/L or ug/Kg) ug/Kg

| | 2,4-Dinitrophenol | | עט |
|-----------|----------------------------|-------|-----|
| | 4-Nitrophenol | 830 | 1 |
| | Dibenzofuran | 330 | 1 |
| 121-14-2 | 2,4-Dinitrotoluene | 330 | |
| | Diethylphthalate | 50 | J / |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 330 | U |
| 86-73-7 | Fluorene | 330 | U |
| 100-01-5 | 4-Nitroaniline | 830 | עט |
| 534-52-1 | 4,6-Dinitro-2-methylphenol | 830 | U |
| 86-30-6 | N-nitrosodiphenylamine (1) | 330 | U |
| 101-55-3 | 4-Bromophenyl-phenylether | 330 | Ū |
| 118-74-1 | Hexachlorobenzene | . 330 | U |
| 87-86-5 | Pentachlorophenol | 830 | U |
| | Phenanthrene | 330 | U |
| 120-12-7 | Anthracene | 330 | U |
| | Carbazole | 330 | U, |
| 84-74-2 | Di-n-butylphthalate | 39 | J / |
| | Fluoranthene | 330 | |
| 129-00-0 | Pyrene | 330 | U |
| 85-68-7 | Butylbenzylphthalate | , 330 | U |
| | 3,3'-Dichlorobenzidine | 330 | W |
| | Benzo(a) anthracene | 330 | U |
| 218-01-9 | Chrysene | 330 | U / |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | 95 | J / |
| | Di-n-octylphthalate | 330 | U |
| 205-99-2 | Benzo(b) fluoranthene | 330 | U |
| 207-08-9 | Benzo(k)fluoranthene | . 330 | U |
| 50-32-8 | Benzo(a) pyrene | 330 | U |
| | Indeno(1,2,3-cd)pyrene | 330 | U |
| | Dibenzo(a,h)anthracene | 330 | U |
| | Benzo(q,h,i)perylene | 330 | U |

FORM I SV-2

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

| JM210 | |
|-------|--|
| JM210 | |

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM199

Matrix: (soil/water) SOIL

Lab Sample ID: 835372

Sample wt/vol: 30.1 (g/mL) g Lab File ID: GH035372A64

Level: (low/med) LOW

Date Received: 12/21/96

% Moisture: 0 decanted: (Y/N) N Date Extracted: 12/23/96

Concentrated Extract Volume: 500 (uL) Date Analyzed: 12/29/96

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

Number TICs found: 20

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

| 1 | | 7 | | 1 |
|------------|-------------------------|--------------|-------------|---------------|
| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q · |
| 1. | ALLOL (BC) | 4.49 | 4700 | 1 . |
| 2. | UNTOVOVO (BC) | 4.72 | | JB n |
| 3. | UNANOWN | 14.41 | 68 | |
| 4. | UNKNOWN CARBOXYLIC ACID | 14.91 | 250 | 1 |
| 5. | UNKNOWN | 15.10 | 300 | |
| 5. | UNKNOWN ALCOHOL | 15.75 | 2000 | 6 1 F |
| 7. | UNKNOWN | 16.10 | 250 | 1 I I |
| S. | UNKNOWN CARBOXYLIC ACID | 16.20 | 270 | J |
| 9. | UNKNOWN | 16.29 | 130 | J |
| 10. | UNANOWN | 16.36 | 3400 | J |
| 11. | UNKNOWN ALCOHOL | 17.00 | 490 | J |
| 12. | UNKNOWN | 17.16 | 100 | J |
| 13. | UNKNOWN . | 17.41 | 210 | J V |
| 14. | UNICOCKY (BC) | 17.53 | 580 | |
| 15. | UNANOWN | 17.65 | 71 | JN |
| 16. | UNKNOWN ALCOHOL | 18.13 | 190 | J |
| 17. | UNKNOWN AMIDE - | 19.59 | 1200 | J |
| 18. | UNKNOWN | 19.74 | 85 | J |
| 19. | מאסמאמט | 20.99 | 100 | J / / |
| 20. | מאסמאתט | 22.09 | 160 | J // |
| 21: | | | | V . |
| 22. | | | | |
| 23 . | | | | |
| 24 | | | | |
| 25. | | | | |
| 26. | | | | |
| 27 | | | | |
| 28. | | | | |
| 29. | | | | |
| 30. | | | | |
| | | | | |

JM169

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU

Case No.: 25253 SAS No.:

SDG No.: JM199

Matrix: (soil/water) SOIL

Lab Sample ID: 835370

Sample wt/vol:

% Moisture: 14

30.1 (g/mL) G

Lab File ID:

decanted: (Y/N) N

Date Received: 12/21/96

Extraction: (SepF/Cont/Sonc) SONC

Date Extracted:12/24/96

Concentrated Extract Volume: 5000 (uL)

Date Analyzed: 01/02/97

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.5

Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:

CAS NO.

COMPOUND

(ug/L or ug/Kg) UG/KG

0

| • | | |
|----------------|---------------------|-----------------------------------------------------|
| 319-84-6 | alpha-BHC | 2.0 U |
| 319-85-7 | | _ 2.0 U |
| | delta-BHC | - 2.0 U |
| | gamma-BHC (Lindane) | 0.23 Jy |
| | Heptachlor | 0.46 J# |
| 309-00-2 | | 0.34 JP |
| | Heptachlor epoxide | 2.0 U |
| | | - 2.0 U / |
| | Endosulfan I | $-\begin{vmatrix} 2.0 & 0 \\ 1.2 & J \end{vmatrix}$ |
| 60-57-1 | | |
| 72-55-9 | | 3.8 U |
| 72-20-5 | | 3.8 U |
| | Endosulfan II | 3.8 U |
| 72-54-8 | | 3.8 U |
| | Endosulfan sulfate | _ 3.8 U |
| 50-29-3 | • | 3.8 U |
| | Methoxychlor | 20 0.52 IPB U |
| | Endrin ketone | 3.8 U |
| 7421-93-4 | Endrin aldehyde | 3.8 U |
| 5103-71-9 | alpha-Chlordane | 2.0 U |
| | gamma-Chlordane | 2.0 U |
| 8001-35-2 | | _ 200 U |
| 12674-11-2 | Aroclor-1016 | _ 38 U |
| | Aroclor-1221 | _ 78 U |
| | Aroclor-1232 | _ 38 U |
| | Aroclor-1242 | - 38 U |
| | Aroclor-1248 | _ 38 U , |
| | Aroclor-1254 | - 38 U / |
| | Aroclor-1260 | - 35 J / |
| 11000 02 20-20 | | - 2' 3 \ |
| | | _ 1 / |

1D PESTICIDE ORGANICS ANALYSIS DATA SHEET

JM179

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM199

Matrix: (soil/water) SOIL Lab Sample ID: 835371

Sample wt/vol: 30.1 (g/mL) G Lab File ID:

% Moisture: 8 decanted: (Y/N) N Date Received: 12/21/96

Extraction: (SepF/Cont/Sonc) SONC Date Extracted:12/24/96

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 12/31/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.6 Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/KG (

| , | |
|-----------------------------|--------------|
| 319-84-6alpha-BHC | 1.8 U |
| 319-85-7beta-BHC | 1.8 U |
| 319-85-8delta-BHC | _ 1.8 u |
| 58-89-9gamma-BHC (Lindane) | 1.8 U |
| 76-44-8Heptachlor | _ 1.8 U . |
| 309-00-2Aldrin | - |
| 1024-57-3Heptachlor epoxide | 1.8 0.32 523 |
| 959-98-8Endosulfan I | 1.810 |
| 60-57-1Dieldrin | 3.6 U |
| 72-55-94,4'-DDE | 3.6 U |
| 72-20-8Endrin | 3.6 U |
| 33213-65-9Endosulfan II | 3.6 U |
| 72-54-84,4'-DDD | 3.6 U |
| 1031-07-SEndosulfan sulfate | 3.6 U |
| 50-29-34,4'-DDT | 3.6 U |
| 72-43-5Methoxychlor | 18 U |
| 53494-70-5Endrin ketone | 3.6 U |
| 7421-93-4Endrin aldehyde | -\ 3.6\U |
| 5103-71-9alpha-Chlordane | 1.8 U |
| 5103-74-2qamma-Chlordane | 1.8 U |
| 8001-35-2Toxaphene | - 180 U |
| 12674-11-2Aroclor-1016 | 36 U |
| 11104-28-2Aroclor-1221 | - 72 U |
| 11141-16-5Aroclor-1232 | - 36 U |
| 53469-21-9Aroclor-1242 | - 36 U |
| 12672-29-6Aroclor-1248 | - 36 U |
| 11097-69-1Aroclor-1254 | 36 0 |
| 11096-82-5Aroclor-1260 | - 36 U |
| 12000 02 0 1200201 1200 | - 30 0 |
| | - |

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JM199

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM199

Matrix: (soil/water) SOIL Lab Sample ID: 835285

Sample wt/vol: 30.1 (g/mL) G Lab File ID:

% Moisture: 14 decanted: (Y/N) N Date Received: 12/21/96

Extraction: (SepF/Cont/Sonc) SONC Date Extracted:12/23/96

Concentrated Extract Volume: 5000(uL) Date Analyzed: 12/31/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.5 Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

| 319-84-6alpha-BHC 2.0 U 319-85-7beta-BHC 2.0 U 319-86-8delta-BHC 2.0 U 58-89-9gamma-BHC (Lindane) 2.0 U 76-44-8Heptachlor 2.0 U 309-00-2Aldrin 2.0 U 1024-57-3Heptachlor epoxide 2.0 U | CAS NO. | COMPOUND | (ug/L or ug/K | g) UG/KG | Q |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-----------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|
| 959-98-8 | 319-85-7 319-86-8 58-89-9 76-44-8 309-00-2 1024-57-3 959-98-8 72-55-9 72-55-9 72-54-8 1031-07-8 50-29-3 50-29-3 53494-70-5 7421-93-4 5103-71-9 5103-74-2 11104-28-2 11104-28-2 11141-16-5 53469-21-9 12672-29-6 11097-69-1 | beta-BHCdelta-BHCgamma-BHC (LindaHeptachlorAldrinHeptachlor epoxiEndosulfan IQieldrin4,4'-DDEEndrin4,4'-DDDEndosulfan sulfa4,4'-DDTMethoxychlorEndrin ketoneEndrin aldehydealpha-Chlordanegamma-ChlordaneToxapheneAroclor-1212Aroclor-1242Aroclor-1254 | ide | 2.0 2.0 2.0 2.0 2.0 2.0 3.8 0.20 3.8 3.8 3.8 3.8 3.8 3.8 3.8 3.8 3.8 3.8 | तत्तत्तत्तत्त्रीतत्त्रीतत्तत्त्वत्तत्तत्तत्तत्तत्तत्तत्तत्तत्तत |

JM200

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM199

Matrix: (soil/water) SOIL

Lab Sample ID: 835294

Sample wt/vol: 30.1 (g/mL) G

Lab File ID:

% Moisture: 12 decanted: (Y/N) N Date Received: 12/21/96

Extraction: (SepF/Cont/Sonc) SONC Date Extracted:12/23/96

Concentrated Extract Volume: 5000(uL) Date Analyzed: 12/31/96

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.5

Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:

CAS NO. COMPOUND

(ug/L or ug/Kg) UG/KG Q

| 319-84-6 | 1.9 U U U U U U U U U U U U U U U U U U U |
|----------|-------------------------------------------|
|----------|-------------------------------------------|

PESTICIDE ORGANICS ANALYSIS DATA SHEET

JM201

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM199

Matrix: (soil/water) SOIL

Lab Sample ID: 835295

Sample wt/vol:

30.4 (g/mL) G

Lab File ID:

% Moisture: 18 decanted: (Y/N) N Date Received: 12/21/96

Extraction: (SepF/Cont/Sonc) SONC Date Extracted:12/23/96

Concentrated Extract Volume: 5000(uL) Date Analyzed: 12/31/96

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.5

Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:

CAS NO.

COMPOUND

(ug/L or ug/Kg) UG/KG

0

| · | , |
|---------------------------------------|---------------|
| 23.0 04 C 23.55 PUC | 2.0 U |
| 319-84-5alpha-BHC | 2.0 U |
| 319-85-7beta-BHC 319-86-8delta-BHC | 1 ' ' ' |
| | 2.0 U |
| 58-89-9gamma-BHC (Lindane) | 2.0 U |
| 76-44-8Heptachlor | 2.0 U |
| 309-00-2Aldrin | 2.0 U |
| 1024-57-3Heptachlor epoxide | 2.0 Ŭ |
| 959-98-8Endosulfan I | 2.0 0 |
| 60-57-1Dieldrin | 0.046 JP |
| 72-55-94,4'-DDE | 4.0 U |
| 72-20-6Endrin | 4.0 U |
| 33213-65-9Endosulfan II | 4.0 U |
| 72-54-S4,4'-DDD | 4.0 U |
| 1031-07-8Endosulfan sulfate | 4.0 U , |
| 50-29-34,4'-DDT | 10 0-15 JPB 4 |
| 72-43-5Methoxychlor | 0-711 IPB /A |
| 53494-70-5Endrin ketone | 20 4.0 U |
| 7421-93-4Endrin aldehyde | 4.0 U |
| 5103-71-9alpha-Chlordane | 0.056 Jg |
| 5103-74-2qamma-Chlordane | 0.051 JY |
| 8001-35-2Toxaphene | 200 U |
| 12674-11-2Aroclor-1016 | 40 U |
| 11104-28-2Aroclor-1221 | 81 U |
| 111:1-16-5Aroclor-1232 | 40 U |
| 53469-21-9Aroclor-1242 | 40 U |
| 12672-29-6Aroclor-1248 | 40 U |
| 11097-69-1Aroclor-1254 | 40 U |
| 11097-89-1Aroclor-1254 | 40 U |
| 11030-95-2 | 20 0 |
| | |

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JM202

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM199

Matrix: (soil/water) SOIL

Lab Sample ID: 835296

Sample wt/vol:

30.3 (g/mL) G

Lab File ID:

% Moisture: 15 decanted: (Y/N) N Date Received: 12/21/96

Extraction: (SepF/Cont/Sonc) SONC

Date Extracted:12/23/96

Concentrated Extract Volume: 5000 (uL)

Date Analyzed: 12/31/96

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.0 Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG Q

| CAS NO. | COMPOUND | (ug/L or | ug/Kg) | UG/KG | Q | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|--------|------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|---|
| 76-44-8 309-00-2 1024-57-3 959-98-8 72-55-9 72-55-9 3213-65-9 1031-07-8 1031-07-8 50-29-3 5103-71-9 5103-71-9 5103-74-2 11104-28-2 11141-16-5 53469-21-9 12672-29-6 11097-69-1 | beta-BHCdelta-BHCgamma-BHC (LinHeptachlorAldrinHeptachlor epoEndosulfan I4,4'-DDEEndrin4,4'-DDDEndosulfan II4,4'-DDDEndosulfan sul4,4'-DDTMethoxychlorEndrin ketoneEndrin aldehydalpha-Chlordar | oxidelfatelele | | 2.0 2.0 2.0 2.0 2.0 2.0 2.0 3.8 0.10 3.8 3.8 3.8 3.8 3.8 3.8 3.8 3.8 3.8 3.8 | वववववववव्यूष्टवम्भूवववव्युववव | U |

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lD PESTICIDE ORGANICS ANALYSIS DATA SHEET

JM203

Q

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM199

Matrix: (soil/water) SOIL

Lab Sample ID: 835297

Sample wt/vol: 30.4 (g/mL) GLab File ID:

% Moisture: 18 decanted: (Y/N) N

Date Received: 12/21/96

Extraction: (SepF/Cont/Sonc) SONC Date Extracted:12/23/96

Concentrated Extract Volume: 5000(uL) Date Analyzed: 01/02/97

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.7 Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

CAS NO.

COMPOUND

0.073 JZ 319-84-6-----alpha-BHC 319-85-7-----beta-BHC 2.0 U 319-86-8-----delta-BHC 2.0 U 58-89-9-----gamma-BHC (Lindane) 2.0 U 0.15 JP 76-44-S-----Heptachlor 2.0 0 309-00-2-----Aldrin 1024-57-3-----Heptachlor epoxide 2.0 U 2.010 959-98-8-----Endosulfan I 4.0 U 60-57-1-----Dieldrin 4.0 U 72-55-9-----4,4'-DDE 4.0 U 72-20-S-----Endrin 4.0 U 33213-65-9-----Endosulfan II 4.0 U 72-54-8-----4,4'-DDD 4.0 U 1031-07-8-----Endosulfan sulfate 4.0 U 50-29-3-----4,4'-DDT 72-43-5-----Methoxychlor 20 U 4.0 U 53494-70-5----Endrin ketone 7421-93-4-----Endrin aldehyde 4.0 U 2.0 0 5103-71-9----alpha-Chlordane 2.0 U 5103-74-2-----qamma-Chlordane 200 U 8001-35-2-----Toxaphene 40 U 12674-11-2-----Aroclor-1016 11104-28-2-----Aroclor-1221 81 U 11141-16-5-----Aroclor-1232 40 U 40 U 53469-21-9-----Aroclor-1242 12672-29-6-----Aroclor-1248 40 U 11097-69-1-----Aroclor-1254 40 U

40 U

11095-82-5-----Aroclor-1260

PESTICIDE ORGANICS ANALYSIS DATA SHEET

JM204

Lab Name: COMPUCEM ENV. CORP. Contract: 68D50009

Q

Lab Code: COMPU Case No.: 25253 SAS No.:

SDG No.: JM199

Matrix: (soil/water) SOIL

Lab Sample ID: 835298

Sample wt/vol: 30.2 (g/mL) G Lab File ID:

% Moisture: 14 decanted: (Y/N) N Date Received: 12/21/96

Extraction: (SepF/Cont/Sonc) SONC

Date Extracted:12/23/96

Concentrated Extract Volume: 5000(uL)

Date Analyzed: 12/31/96 ·

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

319-84-6----alpha-BHC

319-85-7----beta-BHC 319-86-8-----delta-BHC

309-00-2-----Aldrin

60-57-1------Dieldrin 72-55-9-----4,4'-DDE

72-54-8-----4,4'-DDD

50-29-3-----4,4'-DDT

8001-35-2-----Toxaphene

12674-11-2----Aroclor-1016

11104-28-2----Aroclor-1221

11141-16-5-----Aroclor-1232

53469-21-9-----Aroclor-1242

12672-29-5-----Aroclor-1248

11097-69-1-----Aroclor-1254

11096-82-5-----Aroclor-1260

72-20-S------Endrin

GPC Cleanup: (Y/N) Y pH: 6.5 Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:

CAS NO. COMPOUND

58-89-9-----gamma-BHC (Lindane)

1024-57-3-----Heptachlor epoxide

76-44-8-----Heptachlor

959-98-3-----Endosulfan I

33213-65-9-----Endosulfan II

72-43-5------Methoxychlor 53494-70-5----Endrin ketone

7421-93-4----Endrin aldehyde

5103-74-2----qamma-Chlordane

5103-71-9----alpha-Chlordane

1031-07-8-----Endosulfan sulfate

(ug/L or ug/Kg) UG/KG

2.0 U 2.0 U 2.0 U 2.0 U 2.0 0 2.0 U 0.13 JP 2.0 U 0.18|J7 / 3.8|U 3.8 U 3.8 U 0.28 37 1 3.8 U 3.80.30 JE 20 2-53 123 3.8 U 0.23 الملا و 0.23 ا 2.0 0 0.26 J 200 U 38 U 77 U 38 U 38 l U 38 U 38 LU 38 U

FORM I PEST

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PESTICIDE ORGANICS ANALYSIS DATA SHEET

JM205

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.:

SDG No.: JM199

Matrix: (soil/water) SOIL

Lab Sample ID: 835299

Sample wt/vol:

30.3 (g/mL) G

Lab File ID:

% Moisture: 9

decanted: (Y/N) N

Date Received: 12/21/96

Extraction: (SepF/Cont/Sonc) SONC

Date Extracted:12/23/96

Concentrated Extract Volume: 5000(uL) Date Analyzed: 12/31/96

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y

рН: 6.б

Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:

CAS NO.

COMPOUND

(ug/L or ug/Kg), UG/KG

| , | |
|-----------------------------|--------------|
| 319-84-6alpha-BHC | 1.8 U |
| 319-85-7beta-BHC | 1.8 U |
| 319-86-8delta-BHC | 1.80 |
| 58-89-9gamma-BHC (Lindane) | 1.8 U |
| 76-44-8Heptachlor | 1.80 |
| 309-00-2Aldrin | 1.80 |
| 1024-57-3Heptachlor epoxide | 1.8 0 |
| 959-98-8Endosulfan I | 1.80 |
| 60-57-1Dieldrin | 3.6 U |
| 72-55-94,4'-DDE | 3.6 U |
| 72-20-8Endrin | 3.6 U |
| 33213-65-9Endosulfan II | 3.6 U |
| 72-54-S4,4'-DDD | 3.6 0 |
| 1031-07-SEndosulfan sulfate | 3.6 U |
| 50-29-34,4'-DDT | 3.6 U |
| 72-43-5Methoxychlor | 18 2.06 JB 4 |
| 53494-70-5Endrin ketone | 76 3.6 U |
| 7421-93-4Endrin aldehyde | 3.6 U |
| 5103-71-9alpha-Chlordane | 1.8 U |
| 5103-74-2gamma-Chlordane | 0.23 17 |
| \$001-35-2Toxaphene | 180 0 |
| 12674-11-2Aroclor-1016 | 36 U |
| 11104-28-2Aroclor-1221 | 73 0 |
| 11141-16-5Aroclor-1232 | 36 0 |
| 53469-21-9Aroclor-1242 | 36 0 |
| 12672-29-6Aroclor-1248 | 36 0 |
| 11097-69-1Aroclor-1254 | 36 0 |
| 11096-82-5Aroclor-1260 | 36 0 |
| 11070-02-3 |] |
| | II |

1D PESTICIDE ORGANICS ANALYSIS DATA SHEET

JM206

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM199

Matrix: (soil/water) SOIL Lab Sample ID: 835300

Sample wt/vol: 30.2 (g/mL) G Lab File ID:

% Moisture: 13 decanted: (Y/N) N Date Received: 12/21/96

Extraction: (SepF/Cont/Sonc) SONC Date Extracted:12/23/96

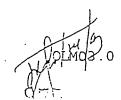
Concentrated Extract Volume: 5000(uL) Date Analyzed: 12/31/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.0 Sulfur Cleanup: (Y/N) N

CAS NO. COMPOUND CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

1.9|U 319-84-6----alpha-BHC 1.9 U 319-85-7----beta-BHC 1.9 U 319-86-8-----delta-BHC 58-89-9------gamma-BHC (Lindane) 1.9 U 1.9 U 76-44-8-----Heptachlor · 1.9 U 309-00-2-----Aldrin 1024-57-3-----Heptachlor epoxide 1.9 U 959-98-8-----Endosulfan I 1.9 U 3.8 U 60-57-1-----Dieldrin 3.8 U 72-55-9-----4,4'-DDE 3.8 U 72-20-8-----Endrin 3.8 U 33213-65-9-----Endosulfan II 3.8 U 72-54-S-----4,4'-DDD 3.8 U 1031-07-S-----Endosulfan sulfate 3.8022 300 50-29-3-----4,4'-DDT 19 U 72-43-5-----Nethoxychlor 3.8 U. 53494-70-5----Endrin ketone 3.8|U 7421-93-4-----Endrin aldehyde 5103-71-9-----alpha-Chlordane 1.9 U 0.24 JZ 5103-74-2-----qamma-Chlordane 8001-35-2----Toxaphene 190 U 12674-11-2-----Aroclor-1016 38 U 76 U 11104-28-2----Aroclor-1221 11141-16-5-----Aroclor-1232 38 I U 53469-21-9-----Aroclor-1242 38 U 38 l U 12672-29-5-----Aroclor-1248 38 U 11097-69-1-----Aroclor-1254 11096-82-5-----Aroclor-1260 38 U



PESTICIDE ORGANICS ANALYSIS DATA SHEET

JM207

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM199

Matrix: (soil/water) SOIL

Lab Sample ID: 835301

Sample wt/vol: 30.1 (g/mL) G

Lab File ID:

% Moisture: 13 decanted: (Y/N) N

Date Received: 12/21/96

Extraction: (SepF/Cont/Sonc) SONC .

Date Extracted:12/23/96

Concentrated Extract Volume: 5000(uL)

Date Analyzed: 12/31/96

Injection Volume: 2.0(uL)

CAS NO.

COMPOUND

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.5

Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

ecology and environment 1503.0 ecology and env

38 U

38 U

11097-69-1-----Aroclor-1254 11096-82-5----Aroclor-1260

PESTICIDE ORGANICS ANALYSIS DATA SHEET

JM208

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM199.

Matrix: (soil/water) SOIL

Lab Sample ID: 835302

Sample wt/vol:

Lab File ID:

% Moisture: 12 decanted: (Y/N) N

30.3 (g/元) G

Date Received: 12/21/96

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted:12/23/96

Concentrated Extract Volume: 5000 (uL)

Date Analyzed: 12/31/96

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.1

Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:

CAS NO.

COMPOUND

(ug/L or ug/Kg) UG/KG

Q



JM209

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM199

Matrix: (soil/water) SOIL

Lab Sample ID: 835303

Sample wt/vol: 30.4 (g/mL) G

Lab File ID:

% Moisture: 13 decanted: (Y/N) N Date Received: 12/21/96

Extraction: (SepF/Cont/Sonc) SEPF

Date Extracted:12/23/96

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 12/31/96

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.6 Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:

CAS NO. COMPOUND

(ug/L or ug/Kg)·UG/KG

| | . 5, | ٠, ٠, | • | - |
|--------------------------------------------------------|--------------------------------------------------------------------|-------|---------------------------------|-------------|
| 319-85-7 319-86-S 58-89-9 | delta-BHC gamma-BHC (Lindane) | | 1.9 1.9 1.9 1.9 | U U |
| 309-00-2 1024-57-3 959-98-8 | Heptachlor epoxide Endosulfan I | | 1.9 1.9 1.9 | บ บ บ |
| 60-57-1 72-55-9 72-20-8 33213-65-9 72-54-8 | 4,4'-DDE Endrin Endosulfan II | | 3.7 3.7 3.7 3.7 3.7 | บ บ บ |
| 1031-07-8 50-29-3 72-43-5 | Endosulfan sulfate | | 3.7 3.70.14 19 3.7 | U H |
| 7421-93-4 5103-71-9 5103-74-2 8001-35-2 | Endrin aldehyde alpha-Chlordane gamma-Chlordane Toxaphene | | 3.7 0.11 0.12 190 | n n n |
| 11104-28-2 11141-16-5 53469-21-9 | Aroclor-1016 Aroclor-1221 Aroclor-1232 Aroclor-1242 | | 37 76 37 37 | บ บ บ |
| 11097-69-1 | Aroclor-1248 Aroclor-1254 Aroclor-1260 | | 37 37 37 | บ |

FORM I PEST

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PESTICIDE ORGANICS ANALYSIS DATA SHEET

JM210

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM199

Matrix: (soil/water) SOIL

Lab Sample ID: 835372

Sample wt/vol:

30.1 (g/mL) G

Lab File ID:

% Moisture: 11 decanted: (Y/N) N

Date Received: 12/21/96

Extraction: (SepF/Cont/Sonc) SONC Date Extracted:12/24/95

Concentrated Extract Volume: 5000(uL) Date Analyzed: 12/31/96

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.6

Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:

CAS NO.

COMPOUND

(ug/L or ug/Kg) UG/KG



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION 10

1200 Sixth Avenue Seattle, Washington 98101

Reply To

Attn Of:

OEA-095

January 22, 1997

MEMORANDUM

Subject: Data Validation Report for Full Organic Analysis

(Volatile Organics, Semi-Volatile Organics, Pesticides and Polychlorinated Biphenyls) of Samples from the Nike Missile Test Launch Site Case: 25253 SDG: JM166

From:

Ginna Grepo-Grove Chemist

Quality Assurance & Data Unit, OEA

To:

Mark Ader, Site Manager

Office of Environmental Cleanup

The quality assurance (QA) review of 20 soil samples collected from the above referenced site has been completed. These sample were analyzed for volatile organics (VOAs), semi-volatile organics (BNAs), pesticides and polychlorinated biphenyls (Pest/PCBs) in accordance with the USEPA Contract Laboratory Program (CLP) Statement of Work (SOW) for Organic Analyses (OLMO3.1) by Compuchem Environmental Corp., Research Triangle Park, NC. The following samples were reviewed in this report:

| JM166 | JM167 | JM168 | JM170 |
|-------|-------|---------|-------|
| | | | |
| JM171 | JM172 | JM173 | JM174 |
| JM175 | JM176 | JM177 | JM178 |
| JM191 | JM192 | - JM193 | JM194 |
| JM195 | JM196 | JM197 | JM198 |

DATA OUALIFICATIONS

The following comments refer to the laboratory performance in meeting the Quality Control Specifications outlined in the USEPA CLP SOW for Organic Analysis (OLM03.1), and the USEPA CLP National Functional Guidelines for Organic Data Review (2/94).

The conclusions presented herein are based on the information provided for the review.

Holding Time - Acceptable

The soil samples were preserved with ice prior to shipment. All of the samples met the method and technical (40 CFR 136 water criteria) required holding times for all analyses. The Holding Times Summary listing the pertinent collection, extraction and analysis dates is attached at the end of this validation report.

Instrument Performance - Acceptable

A total of one GC and two GC/MS systems were used in all of the analyses (1 GC/MS for VOA, 1 GC/MS for BNAs and 1 GC/ECDs for pest/PCBs). All of the systems met the SOW specified technical acceptance criteria prior to sample analyses i.e, tuning and GC/MS performance checks, resolution checks, retention time, response factors and calibrations. The systems remained stable throughout the course of analyses. Instrument blanks were all clean and there were no indications of carry-over.

Initial Calibrations

Three initial calibrations performed for VOAs, ABNs and pest/PCB analyses were evaluated. All of the initial calibrations performed met the SOW technical acceptance criteria with the exception of the following:

| Date of Analysis | Fraction | Compound | %RSD | Associated Samples | Qualifier Detects/Non-Detects |
|---------------------|----------|------------------------|------|-----------------------|----------------------------------|
| 12/19/96 | VOA | chloromethane | 37.0 | All samples | J/None |
| | | vinyl chloride | 32.6 | All samples | J/None |
| | | acetone | 60.7 | All sampl;es | 7/07 |
| 12/28/96 | BNA | 2,4-dinitrophenol | 33.7 | All samples | UJ/None |
| | | 4-nitroaniline | 42.3 | All samples | UJ/None |
| | | 3,3'-dichlorobenzidine | 44.4 | All samples | UJ/None |

Both chloromethane and vinyl chloride initial calibration curves were linear up to 50 ppb. Since none of the chloromethane and vinyl chloride were detected at concentrations over 50 ppb, none of the data were qualified. The two low standards for acetone were not linear. Therefore, both the acetone non-detects and detects at concentrations \leq 20 ppb were qualified as estimates, "J/UJ". The lowest standards for 2,4-dinitrophenol, 4-nitroaniline and 3,3'-dichlorobenzidine were not linear. Therefore, the quantitation limits for these three BNA compounds were qualified as estimated, "UJ".

Continuing Calibrations

All of the continuing calibration verification standards (CCVs) met the criteria for frequency of analysis, the minimum response factor, the retention time, the chromatographic resolution, the relative percent difference (RPD) and the percent difference (%D) criteria with the following exceptions (The compounds listed below exceeded the %D criteria):

| Date of Analysis | Fraction | Compound | Associated Samples | Qualifier Detect/Non-Detect |
|---------------------|----------|---------------------------------------------------------|----------------------------|--------------------------------|
| 12/23/96 | VOA | cibromochloromethane, bromoform | JM166, JM167, JM168, JM170 | J/None |
| 12/30/96 | BNA | 2.4-dinitrophenol 4-nitroaniline 3.3'-dichlorobenzidine | All samples | J/None LUJL |

2,4-Dinitrophenol, 4-nitroaniline and 3,3'-dichlorobenzidine were already qualified on the basis of initial calibration criteria. No further qualification are required.

Compound Quantitation and Detection Limits

All of the samples were analyzed at the contract required quantitation limits (CRQLs). All of the reported results were within the calibration linear range and were adjusted for sample amount and percent moisture. Target compounds that were detected at concentrations less than the quantitation limits were qualified as estimated, "J". The detected pesticide and PCBs were quantitated from both columns. The lower pesticide/PCB value were reported. Pesticide/PCB concentrations with %Ds >25% were qualified as estimated, "J".

Blanks

The frequency of analysis of laboratory blanks was met. Background levels for all target compounds in the method blanks were below the CRQLs. Acetone and methylene chloride were detected in the holding blank VHBLKP7. The acetone and methylene chloride detected in the associated samples at concentrations less than ten times the value in the blank were qualified as non-detects, "U". Methoxychlor and endosulfan sulfate were detected in the pest/PCB blank PBLKPR. The detected methoxychlor and endosulfan sulfate in the samples at concentrations less than five time the concentrations in the blank were qualified as non-detects, "U".

Analytical Sequence - Acceptable

All of the standards, blanks, samples and QC samples were analyzed in accordance with the SOW-specified analytical sequence for all three types of organic analyses.

System Monitoring Compounds (SMC)/Surrogates

All of the VOA, ABN and pest/PCB surrogate recoveries met the applicable QC criteria with the following exceptions:

Due to possible low bias, the associated pesticide and PCB results for sample JM167 were qualified as estimated, "J/UJ".

Matrix Spike/Matrix Spike Duplicate (MS/MSD)

Sample JM174 was analyzed for VOA, BNAs, pest/PCB MS/MSD. The frequency of analysis of MS/MSD was met for all analyses. All of the applicable QC criteria for MS and MSD analyses were met with the exception of the following:

BNA MS/MSD recoveries:

| Compound | MS Recovery (%) | MSD Recovery (%) | QC Limits (%) | |
|--------------------|-----------------|------------------|------------------|--|
| 2,4-dinitrotoluene | 102 | 92 | 28-89 | |
| Pentachlorophenol | 145 | 148 | 17-109 | |

None of the associated data were qualified on this basis.

Internal Standards - Acceptable

The acceptance criteria for internal standards (IS) are ± 0.5 minutes for retention time shifts and -50% to +100% of the IS area as compared to the IS retention time and area of the continuing calibration standard. All of the GC/MS analyses met the IS area and retention time shift criteria. None of the data were qualified on this basis.

Compound Identification

All of the compounds detected in the GC/MS analyses were within the retention time windows and met the USEPA spectral matching criteria. All of the pest/PCB detected in the samples were within the retention time windows and were detected in both columns. None of the data were qualified on the basis of compound identification.

Tentatively Identified Compounds

Peaks that were detected in the samples at areas >10% of the internal standards and were not part of the target compound lists were identified as tentatively identified compounds (TICs). TICs that were both found in the sample and the associated method blank(s) were qualified as unusable, "R". Peaks that were identified as common laboratory contaminants, solvent preservatives, column bleed or aldol condensation products were qualified as unusable, "R". The rest of the peaks identified as TICs were qualified "JN", tentatively identified at an estimated concentration.

Laboratory Contact

The laboratory was not contacted for this review.

Overall Assessment

All of the samples were analyzed in accordance with the SOW specifications. Data results, as qualified, are acceptable and can be used for all purposes.

Holding Time Summary - Case 25253 SDG: JM166

| Sample Number | Collection Date | VTSR* | Analysis Date VOA | Extraction Date | Analysis Date BNA | Analysis Date Pest/PCB |
|------------------|--------------------|----------|-------------------------|--------------------|-------------------------|------------------------------|
| JM166 | 12/16/96 | 12/21/96 | 12/23/96 | 12/23/96 | 12/30/96 | 01/02/97 |
| JM167 | 12/19/96 | 12/21/96 | 12/23/96 | 12/23/96 | 12/30/96 | 01/02/97 |
| JM168 | 12/16/96 | 12/21/96 | 12/23/96 | 12/23/96 | 12/30/96 | 01/02/97 |
| JM170 | 12/15/96 | 12/21/96 | 12/23/96 | 12/23/96 | 12/30/96 | 01/02/97 |
| JM171 | 12/17/96 | 12/21/96 | 12/24/96 | 12/23/96 | 12/30/96 | 01/02/97 |
| JM172 | 12/17/96 | 12/21/96 | 12/24/96 | 12/23/96 | 12/30/96 | 01/03/97 |
| JM173 | 12/18/96 | 12/21/96 | 12/24/96 | 12/23/96 | 12/30/96 | 01/03/97 |
| JM174 | 12/18/96 | 12/21/96 | 12/24/96 | 12/23/96 | 12/30/96 | 01/03/97 |
| JM175 | 12/18/96 | 12/21/96 | 12/24/96 | 12/23/96 | 12/30/96 | 01/03/97 |
| JM176 | 12/18/96 | 12/21/96 | 12/24/96 | 12/23/96 | 12/30/96 | 01/03/97 |
| JM177 | 12/13/96 | 12/21/96 | 12/24/96 | 12/23/96 | 12/30/96 | 01/03/97 |
| JM178 | 12/18/96 | 12/21/96 | 12/24/96 | 12/23/96 | 12/31/96 | 01/03/97 |
| JM191 | 12/17/96 | 12/21/96 | NA | 12/23/96 | NА | 12/31/96 |
| JM192 | 12/18/96 | 12/21/96 | NA | 12/23/96 | N.A. | 12/31/96 |
| JM193 | 12/17/96 | 12/21/96 | NA | 12/23/96 | AИ | 01/01/97 |
| JM194 | 12/16/96 | 12/21/96 | 12/24/96 | 12/23/96 | 12/30/96 | 01/01/97 |
| JM195 | 12/18/96 | 12/21/96 | 12/24/96 | 12/23/96 | 12/30/96 | 01/02/97 |
| JM196 | 12/18/96 | 12/21/96 | 12/24/96 | 12/23/96 | 12/30/96 | 01/02/97 |
| JM197 | 12/17/96 | 12/21/96 | 12/24/96 | 12/23/96 | 12/30/96 | 01/02/97 |
| JM198 | 12/17/96 | 12/21/96 | 12/24/96 | 12/23/96 | 12/30/96 | 01/02/97 |

^{*}VTSR - Verified Time of Sample Receipt in the Laboratory

^{**} NA - Not Analyzed

DATA OUALIFIERS

- U The analyte was not detected at or above the reported result.
- J The analyte was positively identified. The associated numerical result is an estimate.
- R The data are unusable for all purposes.
- N There is evidence the analyte is present in this sample.
- JN There is evidence that the analyte is present.

 The associated numerical result is an estimate.
- UJ The analyte was not detected at or above the reported estimated result. The associated numerical value is an estimate of the quantitation limit of the analyte in this sample.

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

JM166

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM166

Matrix: (soil/water) SOIL Lab Sample ID: 835257

Sample wt/vol: 5.0 (g/mL) g Lab File ID: GH035257C51

Level: (low/med) LOW Date Received: 12/21/96

% Moisture: not dec. 9 Date Analyzed: 12/24/96

GC Column: DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/Kg Q

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|-------------------------------------|---------------------------------------|-------|
| 74-87-3Chloromethane | iı | U |
| 74-83-9Bromomethane | | 1 |
| 75-01-4Vinyl Chloride | — 11 | E . |
| 75-00-3Chloroethane | | 1 |
| 75-09-2Methylene Chloride | 11 | E . |
| 67-64-1 | | נט |
| 75-15-0Carbon Disulfide | <u> </u> | 1 |
| 75-35-41,1-Dichloroethene | ii | · |
| 75-34-31,1-Dichloroethane | - 11 | |
| 540-59-01, 2-Dichloroethene (total) | | |
| 67-66-3Chloroform | _ | 1 |
| 107-06-21,2-Dichloroethane | - 11 | 1 . |
| 78-93-32-Butanone | 一l | 1 |
| 71-55-61,1,1-Trichloroethane | | |
| 56-23-5Carbon Tetrachloride | - 11 | |
| 75-27-4Bromodichloromethane | - 11 | |
| 78-87-51, 2-Dichloropropane | — iii | 1 ' 1 |
| 10061-01-5cis-1,3-Dichloropropene | 11 | |
| 79-01-6Trichloroethene | - 11 | I |
| 124-48-1Dibromochloromethane | - 1 . 11 | 1 . |
| 79-00-51,1,2-Trichloroethane | 11 | |
| 71-43-2Benzene | 11 | 1 - |
| | | · - |
| 10061-02-6trans-1,3-Dichloropropene | 11 | 1 3 |
| 75-25-2Bromoform | " 11 | _ |
| 108-10-14-Methyl-2-Pentanone | 11 | |
| 591-78-62-Hexanone | 11 | 1 |
| 127-18-4Tetrachloroethene | 11 | 1 |
| 79-34-51,1,2,2-Tetrachloroethane_ | 11 | |
| 103-88-3Toluene | . 11 | 1 |
| 108-90-7Chlorobenzene | 11 | |
| 100-41-4Ethylbenzene | | l . |
| 100-42-5Styrene | 11 | _ |
| 1330-20-7Xylene (Total) | 11 | Į Ū |
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1E VOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

| | JM166 | |
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Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.:

SDG No.: JM166

Matrix: (soil/water) SOIL

Lab Sample ID: 835257

Sample wt/vol: 5.0 (g/mL) g

Lab File ID: GH035257C51

Level: (low/med) LOW

Date Received: 12/21/96

Date Analyzed: 12/24/96

% Moisture: not dec. 9

Dilution Factor: 1.0

GC Column:DB624 ID: 0.53 (mm)

Soil Aliquot Volume: ____ (uL)

Soil Extract Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

Number TICs found: 3

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|-----------------------------------------|-----------------------------------------|-------------|--------------|--------------|
| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
| ======================================= | ======================================= | ======= | ========== | ===== |
| 1. | CO2 (NOT IN TIC TOTAL) | 0.87 | 29- | LJB ·K |
| 2. | LABORATORY ARTIFACT | 16.56 | 7 | Lx /. |
| 3. | LABORATORY ARTIFACT | 10.30 | 7.0 | [J |
| | IMBURATURI ARTIFACI | 13.24 | 12 | - |
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1A VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

JM167

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.:

SDG No.: JM166

Matrix: (soil/water) SOIL

Lab Sample ID: 835266

Sample wt/vol: 5.0 (g/mL) g

Lab File ID: GH035266C51

Level: (low/med) LOW

Date Received: 12/21/96

% Moisture: not dec. 9

Date Analyzed: 12/24/96

GC Column: DB624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: ____(uL)

CONCENTRATION UNITS:

CAS NO. COMPOUND

(ug/L or ug/Kg) ug/Kg Q

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|-------------------------------------|--------------|
| 74-87-3Chloromethane | טונ |
| 74-83-9Bromomethane | וו |
| 75-01-4Vinyl Chloride | טונו |
| 75-00-3Chloroethane | 11 U |
| 75-09-2Methylene Chloride | 11 2 2 4 |
| 67-64-1Acetone | עט ווו |
| 75-15-0Carbon Disulfide | 11 U |
| 75-35-41,1-Dichloroethene | 11 0 |
| 75-34-31,1-Dichloroethane | 11 0 |
| 540-59-01,2-Dichloroethene (total) | 11/0 |
| 67-66-3Chloroform | iilu |
| 107-06-21,2-Dichloroethane | 11 0 |
| 78-93-32-Butanone | 11 U |
| 71-55-61,1,1-Trichloroethane | 11 0 |
| 56-23-5Carbon Tetrachloride | 11 0 |
| 75-27-4Bromodichloromethane | 11 U |
| 78-87-51,2-Dichloropropane | 11 0 |
| 10061-01-5cis-1,3-Dichloropropene | 11 0 |
| 79-01-6Trichloroethene | 11 0 |
| 124-48-1Dibromochloromethane | 11 0 |
| 79-00-51,1,2-Trichloroethane | 11 0 |
| 71-43-2Benzene | 11 U |
| | |
| 10061-02-6trans-1,3-Dichloropropene | 11 U 11 U |
| | |
| 108-10-14-Methyl-2-Pentanone | 11 U |
| 591-78-62-Hexanone | 11 U |
| 127-18-4Tetrachloroethene | 11 0 |
| 79-34-51,1,2,2-Tetrachloroethane | 11 U |
| 103-88-3Toluene | 11 U |
| 108-90-7Chlorobenzene | 11 U |
| 100-41-4Ethylbenzene | 11 U |
| 100-42-5Styrene | 11 U |
| 1330-20-7Xylene (Total) | 11 11 |
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VOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

| JM167 | - |
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| Lab N | ≀ame: | COMPUCHEM | ENV. | CORP. |
|-------|-------|-----------|------|-------|
|-------|-------|-----------|------|-------|

Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.:

SDG No.: JM166

Matrix: (soil/water) SOIL

Lab Sample ID: 835266

Sample wt/vol: 5.0 (g/mL) g

Lab File ID: GH035266C51

Lavel: (low/med) LOW

Date Received: 12/21/96

% Moisture: not dec. 9

Number TICs found: 3

Date Analyzed: 12/24/96

GC Column: DB624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: ____(uL)

Soil Aliquot Volume: ____(uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | 0 |
|------------|------------------------|------------------|----------------------------------------|-----------------------|
| | | ! | #===================================== | _ |
| 1 | 1 | 1 | 1 | |
| 1. | CO2 (NOT IN TIC TOTAL) | 0.82 | 13 | 1 33 / / € |
| 2. | LABORATORY ARTIFACT | 16.52 | | ਰਿ /. |
| 3. | LABORATORY ARTIFACT | 19:21 | 34 | j - V |
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1A VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

JM168

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.:

SDG No.: JM166

Matrix: (soil/water) SOIL

Lab Sample ID: 835267

Sample wt/vol: 5.0 (g/mL) g Lab File ID: GH035267C51

Level: (low/med) LOW

Date Received: 12/21/96

Date Analyzed: 12/24/96

% Moisture: not dec. 9

GC Column: DB624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: ____(uL)

Soil Aliquot Volume: ____(uL)

CONCENTRATION UNITS:

CAS NO. COMPOUND

(ug/L or ug/Kg) ug/Kg Q

| 74 07 2 Chlausachana | 22 77 |
|-------------------------------------|---------|
| 74-87-3Chloromethane | . 11 0 |
| 74-83-9Bromomethane | 11 U |
| 75-01-4Vinyl Chloride | 11 U |
| 75-00-3Chloroethane | 11 0 |
| 75-09-2Methylene Chloride | 11 2 54 |
| 67-64-1Acetone | 11 [U |
| 75-15-0Carbon Disulfide | . 11 U |
| 75-35-41,1-Dichloroethene | 11 U |
| 75-34-31,1-Dichloroethane | 11 U |
| 540-59-01,2-Dichloroethene (total) | 11 U |
| 67-66-3Chloroform | 11 U |
| 107-06-21, 2-Dichloroethane | 11 \U |
| 78-93-32-Butanone | 11 U |
| 71-55-61,1,1-Trichloroethane | 11 (U |
| 56-23-5Carbon Tetrachloride | 11 U |
| 75-27-4Bromodichloromethane | ט נו |
| 78-87-51, 2-Dichloropropane | 11 U |
| 10061-01-5cis-1,3-Dichloropropene | טונב |
| 79-01-6Trichloroethene | טונ |
| 124-48-1Dibromochloromethane | יוו |
| 79-00-51,1,2-Trichloroethane | 11 U |
| 71-43-2Benzene | 11 0 |
| 10061-02-6trans-1,3-Dichloropropene | 11 0 |
| 75-25-2Bromoform | 11 U |
| 108-10-14-Methyl-2-Pentanone | 11 0 |
| 591-78-62-Hexanone | 11 0 |
| 127-18-4Tetrachloroethene | 11 0 |
| 79-34-51,1,2,2-Tetrachloroethane | 1110 |
| 108-88-3Toluene | 11 0 |
| 108-90-7Chlorobenzene | 11 0 |
| 100-41-4Ethylbenzene | 11 0 |
| 100-42-5Styrene | 11 U |
| 1330-20-7Xylene (Total) | 11 0 |
| 1990-50-1-1-1-WATCHE (10001) | 11 0 |
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VOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

| EPA | SAMPLE | NO. |
|-----|--------|-----|
| | | |

| Lab Name | : : | COMPUCHEM | ENV. | CORP. |
|----------|-----|-----------|------|-------|

Contract: 68D50009

| JM158 | |
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Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM166

Matrix: (soil/water) SOIL

Lab Sample ID: 835267

Sample wt/vol: 5.0 (g/mL) g

Lab File ID: GH035267C51

Level: (low/med) LOW

Date Received: 12/21/96

% Moisture: not dec. 9

Date Analyzed: 12/24/96

GC Column: DB624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: ____(uL)

Soil Aliquot Volume: ____(uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

Number TICs found: 2

| | | | , | , |
|------------|---------------------------------------|---------------|---------------------------------------|--------------|
| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
| 1. | CO2 (NOT IN TIC TOTAL) | 0.83 | 1 | JB-R |
| 2. | LABORATORY ARTIFACT | 19.19 | 12 | 3 (1) |
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JM170

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM166

Matrix: (soil/water) SOIL

Lab Sample ID: 835268

Sample wt/vol: 5.0 (g/mL) g

Lab File ID: GH035268C51

Level: (low/med) LOW

Date Received: 12/21/96

% Moisture: not dec. 9

Date Analyzed: 12/24/96

GC Column: DB524 ID: 0.53 (mm)

COMPOUND

Dilution Factor: 1.0

Soil Extract Volume: (uL)

CAS NO.

Soil Aliquot Volume: (uL)

. CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

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|-----------|----------------------------|--------------|------------|------|----|
| 74-87-3 | Chloromethane | | 11 | ŢŢ | |
| | Bromomethane | - | 11 | 1 1 | |
| | Vinyl Chloride | - . | 11 | 1 | |
| | Chloroethane | - | 11 | } I | |
| | Methylene Chloride | | 11 | 1 1 | |
| 67-64-1 | . * | - | مير أ | 844 | ٠. |
| | Carbon Disulfide | -} ′ | / /- 11 | Up 7 | 5 |
| | 1,1-Dichloroethene | · . | 11 | | 5 |
| | 1,1-Dichloroethane | | 11 | | |
| | 1,2-Dichloroethene (total) | - | 11 | | |
| | Chloroform | · [| . 11 | 1 1 | |
| | 1,2-Dichloroethane | · | 11 | 1 | |
| | 2-Butanone | · [| 11 | 1 | |
| | 1,1,1-Trichloroethane | · [| 11 | | |
| | Carbon Tetrachloride | | 11 | | |
| | Bromodichloromethane | | 11 | 1 | |
| | 1,2-Dichloropropane | .] | 11 | | • |
| | cis-1,3-Dichloropropene | | 11 | | |
| | Trichloroethene | | 11 | - 1 | |
| | Dibromochloromethane | • | 11 | I I | |
| | 1,1,2-Trichloroethane | .{ | 11 | | |
| 71-43-2 | | | 11 | | |
| | trans-1,3-Dichloropropene | | 11 | | |
| | Bromoform | 1 | 11 | | |
| | 4-Methyl-2-Pentanone | 1 | 11 | | |
| | 2-Hexanone | | 11 | | |
| | Tetrachloroethene | 1 | 11 | I . | |
| , - | 1,1,2,2-Tetrachloroethane | | 11 | · 1 | |
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| 108-88-3 | | 1 | 11 | 1 - | |
| | Chlorobenzene | | 11 | | |
| | Ethylbenzene | | 11 | - | |
| 100-42-5 | · | | 11 | | |
| エコンひーこひ・1 | Xylene (Total) | | 11 | | |

VOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

| JM170 | |
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EPA SAMPLE NO.

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.:

SDG No.: JM166

Matrix: (soil/water) SOIL

Lab Sample ID: 835268

Sample wt/vol: 5.0 (g/mL) g Lab File ID: GH035268C51

Level: (low/med) LOW

Date Received: 12/21/96

% Moisture: not dec. 9

Date Analyzed: 12/24/96

GC Column: DB624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: ____(uL)

CONCENTRATION UNITS:

Number TICs found: 2 (ug/L or ug/Kg) ug/Kg

| | | <u> </u> | , ` | |
|------------------|------------------------|-------------|---------------------------------------------------|------|
| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
| | CO2 (NOT IN TIC TOTAL) | | ======================================= | |
| | ADORATORY ARTIFACT | 19.24 | ±2 | ± 1/ |
| 2. | ADDICATOR ACTING | -10.24 | | U- V |
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JM171

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM166

Matrix: (soil/water) SOIL Lab Sample ID: 835269

Sample wt/vol: 5.0 (g/mL) gLab File ID: GH035269C51

Level: (low/med) LOW Date Received: 12/21/96

Date Analyzed: 12/24/96 % Moisture: not dec. 11

GC Column: DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: ____(uL)

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/Kg Q

| 74-87-3 | , | , | , |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|----------------------|---------------|
| 74-83-9 | 74-87-3Chloromethane | 11 0 | |
| 75-01-4 | | 1 | |
| 75-00-3 | 75-01-4Vinyl Chloride | ווע | - |
| | 75-00-3Chloroethane | l 11 U | . [|
| 67-64-1 | 75-09-2Methylene Chloride | 11 1 1 1 1 1 1 1 1 1 | 4. [|
| 75-15-0 | | 1881 | usl |
| 75-34-31,1-Dichloroethane 11 U 540-59-01,2-Dichloroethene (total) 11 U 67-66-3Chloroform 11 U 107-06-21,2-Dichloroethane 11 U 78-93-32-Butanone 11 U 71-55-61,1-Trichloroethane 11 U 56-23-5Carbon Tetrachloride 11 U 75-27-4Bromodichloromethane 11 U 78-87-51,2-Dichloropropane 11 U 10061-01-51,3-Dichloropropene 11 U 79-01-6Trichloroethane 11 U 79-00-51,1,2-Trichloroethane 11 U 79-00-51,1,2-Trichloroethane 11 U 105-02-6trans-1,3-Dichloropropene 11 U 75-25-2Bromoform 11 U 108-10-14-Methyl-2-Pentanone 11 U 591-78-62-Hexanone 11 U 127-18-4Tetrachloroethane 11 U 108-88-3Toluene 11 U 108-90-7Chlorobenzene 11 U 100-42-5Styrene 11 U | 75-15-0Carbon Disulfide | // 11 U | |
| 75-34-31,1-Dichloroethane 11 U 540-59-01,2-Dichloroethene (total) 11 U 67-66-3Chloroform 11 U 107-06-21,2-Dichloroethane 11 U 78-93-32-Butanone 11 U 71-55-61,1-Trichloroethane 11 U 56-23-5Carbon Tetrachloride 11 U 75-27-4Bromodichloromethane 11 U 78-87-51,2-Dichloropropane 11 U 10061-01-51,3-Dichloropropene 11 U 79-01-6Trichloroethane 11 U 79-00-51,1,2-Trichloroethane 11 U 79-00-51,1,2-Trichloroethane 11 U 105-02-6trans-1,3-Dichloropropene 11 U 75-25-2Bromoform 11 U 108-10-14-Methyl-2-Pentanone 11 U 591-78-62-Hexanone 11 U 127-18-4Tetrachloroethane 11 U 108-88-3Toluene 11 U 108-90-7Chlorobenzene 11 U 100-42-5Styrene 11 U | 75-35-41,1-Dichloroethene | 11 0 | - [|
| 540-59-01, 2-Dichloroethene 11 U 67-66-3Chloroform 11 U 107-06-21, 2-Dichloroethane 11 U 78-93-32-Butanone 11 U 71-55-61, 1, 1-Trichloroethane 11 U 56-23-5Carbon Tetrachloride 11 U 75-27-4Bromodichloromethane 11 U 78-87-51, 2-Dichloropropane 11 U 10061-01-5cis-1, 3-Dichloropropene 11 U 79-01-6Trichloroethene 11 U 124-48-1Benzene 11 U 10061-02-61, 1, 2-Trichloroethane 11 U 79-30-5Bromoform 11 U 105-25-2Bromoform 11 U 108-10-1Bromoform 11 U 127-18-4Bromoform 11 U 127-18-4 | | 11 U | - 1 |
| 107-06-21,2-Dichloroethane 11 U 78-93-32-Butanone 11 U 71-55-61,1,1-Trichloroethane 11 U 56-23-5Carbon Tetrachloride 11 U 75-27-4Bromodichloromethane 11 U 78-87-51,2-Dichloropropane 11 U 10061-01-51,3-Dichloropropene 11 U 79-01-6Trichloroethene 11 U 79-00-51,1,2-Trichloroethane 11 U 79-00-51,1,2-Trichloroethane 11 U 10061-02-6trans-1,3-Dichloropropene 11 U 75-25-2Bromoform 11 U 108-10-14-Methyl-2-Pentanone 11 U 591-78-62-Hexanone 11 U 127-18-4Tetrachloroethene 11 U 79-34-5Chlorobenzene 11 U 108-88-3Chlorobenzene 11 U 100-41-4Ethylbenzene 11 U | 540-59-01,2-Dichloroethene (total) | . 11 U | |
| 78-93-32-Butanone 11 U 71-55-61,1,1-Trichlcroethane 11 U 56-23-5Carbon Tetrachloride 11 U 75-27-4Bromodichloromethane 11 U 78-87-51,2-Dichloropropane 11 U 10061-01-5cis-1,3-Dichloropropene 11 U 79-01-6Trichloroethene 11 U 124-48-1Dibromochloromethane 11 U 79-00-51,1,2-Trichloroethane 11 U 71-43-2Benzene 11 U 10061-02-6trans-1,3-Dichloropropene 11 U 75-25-2Bromoform 11 U 108-10-14-Methyl-2-Pentanone 11 U 591-78-62-Hexanone 11 U 127-18-4Tetrachloroethene 11 U 79-34-5Toluene 11 U 108-90-7Chlorobenzene 11 U 100-41-4Ethylbenzene 11 U 100-42-5Styrene 11 U | 67-66-3Chloroform | 11 0 |] |
| 71-55-61,1,1-Trichloroethane 11 U 56-23-5Carbon Tetrachloride 11 U 75-27-4Bromodichloromethane 11 U 78-87-51,2-Dichloropropane 11 U 10061-01-5cis-1,3-Dichloropropene 11 U 79-01-6Trichloroethene 11 U 124-48-1Dibromochloromethane 11 U 79-00-51,1,2-Trichloroethane 11 U 71-43-2Benzene 11 U 10061-02-6trans-1,3-Dichloropropene 11 U 75-25-2Bromoform 11 U 108-10-14-Methyl-2-Pentanone 11 U 127-18-4Tetrachloroethene 11 U 19-34-51,1,2,2-Tetrachloroethane 11 U 108-88-3Toluene 11 U 100-41-4Ethylbenzene 11 U 100-42-5Styrene 11 U | 107-06-21,2-Dichloroethane | . 11 0 |] |
| 56-23-5 | 78-93-32-Butanone | 11 U |] |
| 56-23-5 | 71-55-61,1,1-Trichloroethane · | 11 U | } |
| 78-87-51, 2-Dichloropropane 11 U 10061-01-5cis-1, 3-Dichloropropene 11 U 79-01-6Trichloroethene 11 U 124-48-1Dibromochloromethane 11 U 79-00-51, 1, 2-Trichloroethane 11 U 71-43-2Benzene 11 U 10061-02-6trans-1, 3-Dichloropropene 11 U 75-25-2Bromoform 11 U 108-10-14-Methyl-2-Pentanone 11 U 591-78-62-Hexanone 11 U 127-18-4Tetrachloroethene 11 U 79-34-51, 1, 2, 2-Tetrachloroethane 11 U 108-88-3Toluene 11 U 108-90-7Chlorobenzene 11 U 100-41-4Ethylbenzene 11 U 100-42-5Styrene 11 U | 56-23-5Carbon Tetrachloride | 11 U | 1 |
| 10061-01-5cis-1,3-Dichloropropene 11 U 79-01-6Trichloroethene 11 U 124-48-1Dibromochloromethane 11 U 79-00-51,1,2-Trichloroethane 11 U 71-43-2Benzene 11 U 10061-02-6trans-1,3-Dichloropropene 11 U 75-25-2Bromoform 11 U 108-10-14-Methyl-2-Pentanone 11 U 591-78-62-Hexanone 11 U 127-18-4Tetrachloroethene 11 U 79-34-51,1,2,2-Tetrachloroethane 11 U 108-88-3Toluene 11 U 108-90-7Chlorobenzene 11 U 100-41-4Ethylbenzene 11 U 100-42-5Styrene 11 U 11 U | 75-27-4Bromodichloromethane | 11 U · | ļ |
| 79-01-6Trichloroethene 11 U 124-48-1Dibromochloromethane 11 U 79-00-51,1,2-Trichloroethane 11 U 71-43-2Benzene 11 U 10061-02-6trans-1,3-Dichloropropene 11 U 75-25-2Bromoform 11 U 108-10-14-Methyl-2-Pentanone 11 U 591-78-62-Hexanone 11 U 127-18-4Tetrachloroethene 11 U 79-34-51,1,2,2-Tetrachloroethane 11 U 108-88-3Toluene 11 U 108-90-7Chlorobenzene 11 U 100-41-4Ethylbenzene 11 U 100-42-5 | | 11 U | |
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| 75-25-2Bromoform 11 U 108-10-14-Methyl-2-Pentanone 11 U 591-78-62-Hexanone 11 U 127-18-4Tetrachloroethene 11 U 79-34-51,1,2,2-Tetrachloroethane 11 U 108-88-3Toluene 11 U 108-90-7Chlorobenzene 11 U 100-41-4Ethylbenzene 11 U 100-42-5Styrene 11 U | | 11 U | |
| 108-10-14-Methyl-2-Pentanone 11 U 591-78-62-Hexanone 11 U 127-18-4Tetrachloroethene 11 U 79-34-51,1,2,2-Tetrachloroethane 11 U 108-88-3Toluene 11 U 108-90-7Chlorobenzene 11 U 100-41-4Ethylbenzene 11 U 100-42-5Styrene 11 U | | 11 0 | 1 |
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| | 100-41-4Ethylbenzene | 11 U | [|
| 1330-20-7Xylene (Total) 11 U | | 11 U | 1 |
| | 1330-20-7Xylene (Total) | 11 U | l |
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1E VOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

| | |
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| JM171 | |
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Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.:

SDG No.: JM166.

Matrix: (soil/water) SOIL

Lab Sample ID: 835269

Sample wt/vol: 5.0 (g/mL) g Lab File ID: GH035269C51

Level: (low/med) LOW

Date Received: 12/21/96

% Moisture: not dec. 11

Date Analyzed: 12/24/96

GC Column: DB624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: ____(uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

Number TICs found: 2

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|--------------------|------------------------|--------------------|-----------------------------------------|-----------------|
| | | i . | ======================================= | ==== |
| 1. | CO2 (NOT IN TIC TOTAL) | 0.83 | 17 | JB |
| 2. | LABORATORY ARTIFACT | 19.20 | | J |
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FORM I VOA-TIC

| Contract Labor | oratory Program Sample Management Office D Box 818 Alexandria, VA 22313 703-557-2490 FTS 557-2490 | & Chain of Custoc (For Organic CLP An | ıy Hecora 🔠 | (If applicable) | 75253 |
|----------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Project Code Account Code COTTONORIA Regional Information Non-Superfund Program Code COTTONORIA Regional Information Site Spill I | Sampler (Name) Nicke Media Sampler Signature 3. Type of Activity Homodial Remove April Remodial Remove SE Remodial RD REMA | 4. Date Shipped Carrier 12/20/96 AIV Airbill Number 5. Ship To Atta: Rich 1600 Silicum R-cs, Triando | BONN 765524 589901-11-0 and Blown Durion | 6. Preservative (Enter in Column D) 1. HCl 2. HNO3 3. NaHSO4 4. H2SO4 5. Other (Specify) 6. Ice only N. Not preserved | 7. Sample Description (Enter In Column A) 1. Surface Water 2. Ground Water 3. Leachate 4. Rinsate 5. Soil/Sodiment 6. Oll (High only) 7. Waste (High only) 8. Other (Specify) |
| Numbers # Low Type: | vative Trac | F G ional Specific Station cking Number Location rag Numbers Number | H Mo/Day/ Year/Time Sample Collection | Sampler Corresp. Initials CLP Inorg. Samp. No. | K Enter Appropriate Qualifier for Designated Field QC B = Blank S = Spike D = Duplicate PE = Perform, Evol. — = Not a QC Sample |
| TM 188 | 11965 | 14703 DW4 | 12/17/46 0836 |) me | |
| tm 189 | 1/1/ 96 | | 12/19/96/09 45 | | |
| m 182 | (96. | 514747 GWRN | 5 12/19/96 1430 | | |
| P | | · · | 7-1-1 | | |
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| | | | | | |
| Shipment for Case complete? (Y/N) | Sample used for a spike and/or dupl | Ilcate Additional Sample | r Signatures | Chain of Custody S | eal Number |
| 0 | | CHAIN OF CUSTODY RECO | dF | | |
| Relinquished by: (Signature) | Date / Time Received by: (Sign | Alure) Relinquished | by: (Signature) | Date / Time Recel | ved by: (Signature) |
| Relincuished by: (Signature) | Date / Time Received by: (Sign | Relinquished | by: (Signature) | Date / Time Recei | ved by: (Signature) |
| Relinquished by: (Signature) | Date / Time Received for Labor (Signature) | atory by: Date / Th | ne Remarks Is cu | ustody seal Intact? Y/N | /none |
| DISTRIBUTION: | EPA Form (2075-7), previous edition which m White - Lab Copy for Return to Region | Yellow - Lab | Accepted (Signal Declined | ARD INSTRUCTIONS | |

O344333

| Contract Lat | States Environmental Protection Agency poratory Program Sample Management Offico PO Box 818 Alexandria, VA 22313 703-557-2490 FTS 557-2490 | Inorganic Traffic Report & Chain of Custody Record (For Inorganic CLP Analysis) | SAS No. (il applicablo) | Case No. 25253 |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| 1. Project Code Account Sorde 97T10 FFAX 10 Z-Z L 400 Regional Information | 2. Region No. Sampling Co. 10 E-6 Sampler (Name) MART(1) | 4. Dato Shippod Carrier 1220 96 Aubome Airbill Number 666705513 | vative (Enter in Column D) 1. HCl | 7. Sample Description (Enter In Column A) 1. Surface Water |
| Non-Superfund Program Site Name Nike McSSEC City, State Site Spill ID | Sampler Signature 3. Type of Activity Function Remains SF Removal RD REMAIN PRP PA RA REM | 5. Ship to SOUTHWEST LABS 1700 WEST ALBANY, SUITED BROKEN AKROW, US | 1 | 2. Ground Water 3. Leachate 4. Rinsate 5. Soll/Sodiment 6. Oll (High only) 7. Waste (High only) 8. Other (Specify) |
| CIP A B C | vative only only Tracki | F G RUCKM-DA) | preserved I J Sampler Corresp. CLP Org. Samp. No. | K Enter Appropriate Qualifier for Designated Field QC B - Blank S - Spike D - Duplicate PE - Perform, Eval, — - Not a QC Sample |
| MTM 873 5 4 6 874 875 876 877 878 878 879 880 889 889 889 889 888 889 888 889 888 889 888 889 888 889 888 889 888 889 888 889 888 889 888 889 888 889 888 889 888 889 888 889 888 889 888 889 888 889 888 889 888 889 888 889 888 889 888 889 888 889 888 889 888 889 888 889 888 889 888 889 888 889 888 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 889 899 899 899 899 899 899 899 899 899 899 899 899 899 899 899 899 899 899 899 899 899 899 899 899 899 899 899 899 899 899 899 899 899 899 899 899 899 899 899 899 899 899 899 899 899 899 899 899 899 899 899 899 899 899 899 899 899 899 899 899 899 899 899 899 899 899 899 899 899 899 899 899 899 899 899 899 899 899 899 899 899 899 899 899 899 899 899 899 899 899 899 899 899 899 899 899 899 899 899 899 899 899 899 899 899 899 899 899 899 899 899 899 899 899 899 899 | 965) 965) 965) 965) 965) 965) 965) 965) | 14718 6P-6B-2 12/17/96 1150 4719 6P-6B-7 12/17/96 1200 4720 6P-7B-2 15/17/96 1245 1472/6P-7B-7 15/17/96 1255 147236P-8B-2 15/17/96 1336 147236P-12B-7 12/18/96 0910 1473/6P-12B-2 12/18/96 0910 | Chain of Custody So | eal Number |
| Relinquished by: (Signature) | Date / Time Received by: (Signal Lands 1607) | CHAIN OF CUSTODY RECORD Ature) Relinquished by: (Signature) | Date / Time Recei | ved by: (Signature) |
| Relinquisited by: (Signature) Relinquished by: (Signature) | Date / Time Received by: (Signal Date / Time Received for Labora (Signature) | lory by: Date / Time Remarks is o | sustody soal Intact? Y/N | ved by: (Signature) /none |
| DISTRIBUTION: | EPA Form (2075-6), previous edition which ma | ., 50 0300 | nature) | |

| | | | unndein MA | anain " | | & Chai | n of Custody | Pacord | (il appli | cable) | Caso No. |
|------------------------------------------|-------------------------------|---------------|------------------|-------------------------------|-----------------|-------------------|----------------------|----------------------|--------------|---------------------------------------|----------------------------------------|
| W L / | | 703-557-2490 | | | | (Fo | or Inorganic CLP Ana | lysis) | | | 25253 |
| Project Code | Account Code タフザノリアト | 2. Region N | . ا | ampling C | 0. | 4. Date Ship | | | | Preser- valive | .7. Sample Description |
| Regional Information | 022 1.100 | 1.0 | | -~1 (| | Airbill Numb | cleubor | 24 | | Enter in . Diumn D) | (Enter In Column A) |
| regional information | • | Sampler (N | | 12/1 | . | | | > | 1. | HCI . | 1 |
| Non-Superlund Prog | ram | Sampler Si | nature ! | ung | | 5. Ship To | 70551 <u>-</u> | <u> </u> | 2. | HNO3 NaOH | Surface Water Ground Water |
| | | | | uli | W | | HULLST L | LABS | 4. | H2SO4 | 3. Leachate 4. Rinsate |
| Site Bame | | | Activity | Remodial | Removal | 1-700 | 1100-1018 | 1111 5 | 6. | K2CR2O7 | 5. Sail/Sediment 6. Oll (High only) |
| We Mis | SSE.L | SF [| Pro- R | D TR | EM | Bruk | en AKROU | 2.01 | 7. | Other (Specily) | 7. Waste (High only) 8. Other |
| City, State | Site Spill ID | PRP | PA 🔙 R | A TH | M | 0,00 | en Akrou | 14017 | N. | Not preserved | (Specily) |
| <u> </u> | J | | LSI N | | | ATTN | ASON Ruc | know | | , | |
| CLP A Enter | B C Conc. Sample | Preser- Mai | E - RAS | | Healor | F ial Specific | G Statlon | H Mo/Day/ | Sampler | J Corresp. | K Enter Appropriate Qualifler |
| Numbers # | Low Typo: | Lyaliya | on (e | ly only | Trackin | ng Nümbar 📗 | Location | Year/Time | Initials | CLP Org. | for Designated Field QC |
| (from Box 7 | Med Comp./ High Grab | from Box 6 | Cyanide Nitrate/ | Fluoride F F Conduc- | or rag | Numbers | Number | Sample Collection | | Samp. No | D = Duplicate |
| 180915) | | Tot | | 문 배경 | Ē | | | | | | PE = Perform, Eval. |
| 75m 871 5 | L G | 611 | | | 965 | 14734 | SP-13B-7 | 12/18/96 1000 | nin | | |
| 87512 890 5 | | 111 | | | 9651 | 4733 | 6P-13B-2 | 12/15/96 0855 | | | |
| 1 866 5 | | | | | 9650 | 4735 | GP-14-4 | 12/18/96 1040 | | | |
| 867 5 | | | | | 7651 | 4736 | SP-14-8 | 12/18/96 1050 | | | |
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| 883 5 | | | | | 965 | | GP-16-2 | 12/18/96 1145 | | | |
| 88/5 | | | | | 965 | 4737 | GP-15-4 | 12/18/96/11/5 | | | |
| 891 5 | | | | | 965 | 14734 | GP-13B-7 | 12/18/96 1000 | | | |
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| V 885 5 | | 1 2 | | | 968 | 7 | GP-17-2 | 12/18/11/ 1300 | | | |
| hipment for Case | Page of_ | Samp | e used for | a spike a | | // | Additional Sampler | | | in of Custo | dy Seal Number |
| omplete? (Y/N) | | | | | | } | | | 1 | | , |
| e g | | | | | | CHAIN OF | USTODY RECORD | · · | | | |
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| 'A Form 9110-1 (Rev | v. 5-91), Replaces | EPA Form (2 | 075-6), pre | vious editio | n which me | y be used | Split Samples | Accepted (Sig | gnature) | · · · · · · · · · · · · · · · · · · · | |
| STRIBUTION: | Diek CHO O- | nu White | Lab Conv | for roturn t | Daglan | Yellow - Lab | | Declined | | • | |
| een - Region Copy by for Return to Si | | ANTE . | ran cobà | IOLIBIUM) (| - vafiou | I ALLOW . CED | SEE DEVEDSE EC | OR ADDITIONAL STAN | IDA BD IN | REPUBLICATION | 3 1 251542 |

| Case No.

| WEP | Contract L | aboratory Program Sami PO Box 818 Alexandria 703-557-2490 FTS | olo Management Office VA 22313 557-2490 | & Chai | yariic iraiiic n of Custody or Inorganic CLP Ana | / Record | (il applicable) | Case No. 25253 |
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| 1. Project Code | Account Code | | Sampling Co. | 4. Date Ship | | · · · · · · · · · · · · · · · · · · · | 6. Prosor- | 7. Sample |
| TEC 680A | QTTIOPFAX | 10 | EVE | 12/20/9 | 1. (11. 600) | DA I | vative (Enter in | Doscription (Enter |
| Regional Informati | 1022.400 on | Sampler (Name) | | Airbill Numb | oor | 7-7 | Column D) | in Column A) |
| r tograndi masan | | 1 00 1 | PRTIN'C | 1.1 | 67055 | / ≥ | 1. HCl | 1. Surfaço Water |
| Non-Superlund Pr | ogram | Sampler Signature | | 5. Ship To | <u> ((())) </u> | <u> </u> | 2. HNO3 3. NaOH | 2. Ground Water |
| 11011-Superiorio 11 | ogram | -w/-/- | al f | | WHUST | LARS | 4. H ₂ SO ₄ | 3. Loachato 4. Rinsato |
| Site Name | | 3. Type of Activ | ty Romodial Romoval | 1700 | ulos Al | RANIV Surel | 5. K2CR2O7 6. too only | 5. Soll/Sodlmont |
| 1 1/ / 41 | . | Load Pro- | PIES COLEMICA | 100 | WX31 /11 | BANY SUITEC OK 74012 | 7. Other (| 6. Oll (High only) 7. Waste (High only) |
| | Site Spill IC | | PA PEMA | PROKE | N HRKOW, | UK 74012 | (Specily) N. Not | 8. Other |
| City, State | | ST SSI FED LSI | O&M OIL UST | | ASON RU | | prosorvod | (Spocity) |
| CLP En | | . la | AS Analysis Ow Conc. High Region | nal Specific | G Station | Mo/Day/ S | I J. Sampler Corresp. | K Enter Appropriate Qualifier |
| Numbers # | Low Type | vative mount | only only Trackl | ng Number | Location | Year/Time | Initials CLP Org. | for Dosignated Floid QC |
| (Irom | | Box 6 Line Cyanide | Project of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tage of Tag | Numbors | · Number | Sample Collection | Samp. No. | B = Illiank S = Spike D = Duplicate |
| labels) | | Box 6 Lank | Thorian or Take | | | | | PE = Portorm, Eval, Not a OC Sample |
| MJM858 : | 2 L G | 2/ | 965 | 14700 | Ples 1 : | 12/16/96 1330 | M JM185 | |
| 10,1110,20 | LG | 2 / | 96 | | 12102 | | my 5M186 | , |
| mJm859 | 1 L G | | 963 | | Dw 3 | | JA187 | |
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| mJn 862 | 2 4 6 | 1-2-1/1-1-1 | 16- | 014 (07 | | 12/17/96 0940 | | |
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| mm1865 " | 5 L G | 61 | 96 | S14708 | GP-1-7 | 12/11/86 1110 | | |
| MIN869 | 51-6 | 6 1/1 | 969 | 14712 | 6.P-3-7 | 12/16/96 1530 | | |
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| complete? (Y/N) | | MTM 86 | 3 | | | | į | |
| | | | | CHAIN OF | CUSTODY RECORD |) | | |
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| Relinquished by: | (Signature) | Date / Time | Received for Labora | lory by: | Date / Time | Remarks Is c | ustody soal Intact? | Y/N/none |
|) | , , | 1 | (Signature) | | 1 | 1 | | • |
| | | | | · | | | | |
| PA Form 9110-1 (I | Rev. 5-91) Replace | s EPA Form (2075-6), | previous edition which m | ay be used | Split Samples | Accepted (Sign | nature) | |
| IISTRIBUTION: | ny Bink-SUCC | onv. White-Lab Co | py for return to Region | Yellow - Lab | 1 | Declined | | |
| copy for Return to | SMO | vr, 223 00 | | | SEE REVERSE FO | R ADDITIONAL STAND | ARD INSTRUCTIONS | 1 251510 |

| week LACO | | 13/20/96 ausbor | 200 | Preser- vative Enter In | 7. Sample Description (Enter |
|-----------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|---------------------------------------|-------------------------------|--------------------------------------------------------|
| Regional Information | Sampler (Name) | Airbill Numbor | 1 0 | olumn D) . HCl | In Column A) |
| Non Cunaduad Program | Sumpler Signature | 6667055 5. Ship To | / | . HNO3 | Surface Water Ground Water |
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| City, State Site Spill ID | PRP PA RA REM | 1700 WEST ALB BROKEN ARROW, OF | < 74.012 N | I. Not | 8. Other (Specify) |
| 797 | ST SSI O&M OIL FED LSI NPLD UST | ATTN: JASON Rug | kmani | preserved | (====================================== |
| B C Conc. Sample Enter Conc. Sample Low Type: | D E - RAS Analysis | FIGI | H () | Course | K Enter Annualista Ovelillas |
| Sample Enter Conc. Sample Low Type: | vative only Track | onal Specific Station ing Number Location | Mo/Day/ Sampler Year/Time Initials | CLP Org. | Enter Appropriate Qualifier for Designated Field QC |
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| ATh 872 5 1 G | 6 1 965 | 14715 GP-4-7. | 17/14/86 1615 | | |
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| MM 899 5 L G | 6 1 96 | 84744 61-18-8 | 12/18/96/1435 | | |
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| 21 Tm 894 2 L G | 22 969 | 5/4745 641-1 | 0119/8/030 | | MSD |
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| Shipment for Case complete? (Y/N) | Sample used for a spike and/or dup | licate Additional Sampler S | Signatures Ch | ain of Custody | Seal Number |
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| 1. Project Code | Account 17770 1022 | PFIF | 2. 110g | 10 | <i>J</i> . | ٦ | аттрі | | o. ≁E | 1-15-97 | | · x | \ \ \ | Preser- vative | 7. Sample Description |
| TEC-650 A Augional Informatio | | LADO | Sample | | mal | l | | | <u> </u> | Airbill Num | | | | Enter In olumn D) | (Enter in Column A) |
| Hegional injulinatio | 11 | , | Sample | Mu | • | | 4 N | • | | 7410 | 420899 | 0271 | | HCI | · |
| | | | Sample | <u> </u> | | | 7/4 | /- | / | 5. Ship To | | | 2. | HNO3 NaOH | Surface Water Ground Water |
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| CIB A | ТвТ | | D | | | | PLDL Analy | | | | G | H | | | К |
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| Shipment for Case | Page | 1 of | l Se | mple | USB | d for | a spi | ke a | nd/or dupli | cate | Additional Sampler | Signatures | Cha | in of Custod | y Seal Number |
| complete? (Y/N) | | • • • • | | Ш | • | | | | - | | · · · · · · · · · · · · · · · · · · · | | | | 885 |
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| DIOTRIBUTION: | | | | | • | | | | | | | | • | | |
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Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009 Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM180 Matrix: (soil/water) WATER Lab Sample ID: 835223 Sample wt/vol: 1000 (g/mL) ML Lab File ID: Date Received: 12/21/96 % Moisture: decanted: (Y/N) Extraction: (SepF/Cont/Sonc) SEPF Date Extracted:12/23/96 Concentrated Extract Volume: 10000(uL) Date Analyzed: 12/31/96 Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:

CAS NO. (ug/L or ug/Kg) UG/L COMPOUND

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JM189

Contract: 68D50009 Lab Name: COMPUCHEM ENV. CORP.

SDG No.: JM180 Lab Code: COMPU Case No.: 25253 SAS No.:

Matrix: (soil/water) WATER Lab Sample ID: 835222

Sample wt/vol: 1000 (g/mL) ML Lab File ID:

Date Received: 12/21/96 % Moisture: _____ decanted: (Y/N)___

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted:12/23/96

Date Analyzed: 12/31/96 Concentrated Extract Volume: 10000(uL)

Dilution Factor: 1.0. Injection Volume: 2.0(uL)

Sulfur Cleanup: (Y/N) N GPC Cleanup: (Y/N) N pH:

CONCENTRATION UNITS:

COMPOUND CAS NO. (ug/L or ug/Kg) UG/L

| | · · · · · · · · · · · · · · · · · · · | |
|-----------------------------|---------------------------------------|-----|
| 319-84-6alpha-BHC | 0.050 | U |
| 319-85-7beta-BHC | 0.050 | υ . |
| 319-86-8delta-BHC | 0.050 | ı |
| 58-89-9gamma-BHC (Lindane) | 0.050 | _ |
| 76-44-8Heptachlor | 0.050 | |
| 309-00-2Aldrin | 0.050 | _ |
| 1024-57-3Heptachlor epoxide | 0.050 | |
| 959-98-8Endosulfan I | 0.050 | |
| 60-57-1Dieldrin | 0.10 | _ |
| 72-55-94,4'-DDE | 0.10 | |
| 72-20-8Endrin | 0.10 | |
| 33213-65-9Endosulfan II | 0.10 | |
| 72-54-84,4'-DDD | 0.10 | |
| 1031-07-SEndosulfan sulfate | 0.10 | |
| 50-29-34,4'-DDT | 0.10 | _ |
| 72-43-5Methoxychlor- | 0.50 | |
| 53494-70-5Endrin ketone | 0.30 | |
| | 0.10 | |
| 7421-93-4Endrin aldehyde | · . | |
| 5103-71-9alpha-Chlordane | 0.050 | |
| 5103-74-2gamma-Chlordane | 0.050 | |
| 8001-35-2Toxaphene | 5.0 | - |
| 12674-11-2Aroclor-1016 | 1.0 | |
| 11104-28-2Aroclor-1221 | 2.0 | |
| 11141-16-5Aroclor-1232 | 1.0 | - |
| 53469-21-9Aroclor-1242 | 1.0 | |
| 12672-29-6Aroclor-1248 | 1.0 | |
| 11097-69-1Aroclor-1254 | 1.0 | |
| 11096-82-5Aroclor-1260 | 1.0 | U |
| | <u></u> | |

EPA SAMPLE NO.

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM180

Matrix: (soil/water) WATER Lab Sample ID: 835221

Sample wt/vol: 1000 (g/mL) ML Lab File ID:

% Moisture: decanted: (Y/N) Date Received: 12/21/96

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted:12/23/96

Concentrated Extract Volume: 10000(uL) Date Analyzed: 12/31/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS: CAS NO. COMPOUND (ug/L or ug/Kg) UG/L

| 319-84-6alpha-BHC | 0.050 U |
|-----------------------------|----------|
| 319-85-7beta-BHC | 0.050 U |
| 319-85-Sdelta-BHC | 0.050 U |
| 58-89-9gamma-BHC (Lindane) | 0.050 U |
| 76-44-8Heptachlor | 0.050 บ |
| 309-00-2Aldrin | 0.050 U |
| 1024-57-3Heptachlor epoxide | 0.050 U |
| 959-98-8Endosulfan I | 0.050 U |
| 60-57-1Dieldrin | 0.10 U |
| 72-55-94,4'-DDE | 0.10 U |
| 72-20-SEndrin | 0.10 U |
| 33213-65-9Endosulfan II | 0.10 U |
| 72-54-84,4'-DDD . | 0.10 U |
| 1031-07-8Endosulfan sulfate | 0.10 U |
| 50-29-34,4'-DDT | · 0.10 U |
| 72-43-5Nethoxychlor | 0.50 U |
| 53494-70-5Endrin ketone | 0.10 U |
| 7421-93-4Endrin aldehyde | 0.10 U |
| 5103-71-9alpha-Chlordane | 0.050 U |
| 5103-74-2gamma-Chlordane | 0.050 U |
| \$001-35-2Toxaphene | 5.0 U |
| 12674-11-2Aroclor-1016 | 1.0 U |
| 11104-28-2Aroclor-1221 | . 2.0 U |
| 11141-16-5Aroclor-1232 | 1.0 U |
| 53469-21-9Aroclor-1242 | 1.0 U |
| 12672-29-6Aroclor-1248 | . 1.0 U |
| 11097-69-1Aroclor-1254 | 1.0 U |
| 11096-82-5Aroclor-1260 | 1.0 U |
| | |

PESTICIDE ORGANICS ANALYSIS DATA SHEET

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM180

Matrix: (soil/water) WATER Lab Sample ID: 835220

Sample wt/vol: 1000 (g/mL) ML Lab File ID:

% Moisture: decanted: (Y/N) Date Received: 12/21/96

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted:12/23/96

Concentrated Extract Volume: 10000(uL) Date Analyzed: 12/31/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) N

CAS NO. COMPOUND COMPOUND (ug/L or ug/Kg) UG/L Q

319-84-6-----alpha-BHC 0.050 U 319-85-7-----beta-BHC 0.050 U 319-86-8-----delta-BHC 0.050 U 58-89-9-----gamma-BHC (Lindane) 0.050 U 0.050 U 76-44-8-----Heptachlor 0.050 U 309-00-2-----Aldrin 1024-57-3----Heptachlor epoxide 0.050 U 959-98-8-----Endosulfan I 0.050 U 0.10 60-57-1-----Dieldrin 72-55-9-----4,4'-DDE 0.10|U 0.10 0 72-20-S-----Endrin 33213-65-9-----Endosulfan II 0.10 U 0.10 U 72-54-S-----4,4'-DDD 1031-07-8-----Endosulfan sulfate 0.10 U 0.10 U 50-29-3-----4,4'-DDT 0.50 0 72-43-5------Methoxychlor 53494-70-5----Endrin ketone 0.10 U 7421-93-4-----Endrin aldehyde 0.10 U 0.050 U 5103-71-9----alpha-Chlordane 5103-74-2----gamma-Chlordane 0.050 U 8001-35-2----Toxaphene 5.0 U 12674-11-2----Aroclor-1016 1.0 U 2.0 U 11104-28-2----Aroclor-1221 1.0 U 11141-16-5----Aroclor-1232 53469-21-9-----Aroclor-1242 1.0 U 12672-29-6-----Aroclor-1248 1.0 U 11097-69-1-----Aroclor-1254 1.0 U 11095-82-5----Aroclor-1260 1.0 0

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PESTICIDE ORGANICS ANALYSIS DATA SHEET

JM186

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM180

Matrix: (soil/water) WATER

Lab Sample ID: 835219

Sample wt/vol: 1000 (g/mL) ML

Lab File ID:

% Moisture: decanted: (Y/N) ___ Date Received: 12/21/96

Extraction: (SepF/Cont/Sonc) SEPF

Date Extracted:12/23/96

Concentrated Extract Volume: 10000(uL) Date Analyzed: 12/31/96

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanuo: (Y/N) N pH:

Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:

CAS NO.

COMPOUND

(ug/L or ug/Kg) UG/L

Q

| | | · |
|----------------------------------------------------------------------------|-------------------------|--------------|
| 319-84-6alpha-BHC 319-85-7beta-BHC 319-86-8delta-BHC | 0.050 0.050 0.050 | 1 |
| 58-89-9gamma-BHC (Lindane) 76-44-8Heptachlor | 0.050 0.050 | บ บ |
| 309-00-2Aldrin 1024-57-3Heptachlor epoxide 959-98-8Endosulfan I | 0.050 0.050 0.050 | |
| 60-57-1Dieldrin 72-55-94,4'-DDE | 0.10 0.10 | U U |
| 72-20-8Endrin 33213-55-9Endosulfan II 72-54-84,4'-DDD | 0.10 0.10 .0.10 | U |
| 1031-07-8Endosulfan sulfate 50-29-34,4'-DDT 72-43-5Methoxychlor | 0.10 0.10 0.50 | Ω_{-} |
| 53494-70-5Endrin ketone | 0.10 0.10 | U U |
| 5103-71-9alpha-Chlordane 5103-74-2gamma-Chlordane 8001-35-2Toxaphene | 0.050 0.050 5.0 | U |
| 12674-11-2Aroclor-1016 | 1.0 2.0 | U U |
| 11141-16-5Aroclor-1232 53469-21-9Aroclor-1242 12672-29-6Aroclor-1248 | 1.0 1.0 1.0 | U |
| 11097-69-1Aroclor-1254 11096-82-5Aroclor-1260 | 1.0 | |
| | | |

1D PESTICIDE ORGANICS ANALYSIS DATA SHEET

JM185

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Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

CAS NO. COMPOUND

12672-29-5----Aroclor-1248

11097-69-1-----Aroclor-1254

11096-82-5-----Aroclor-1260

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM180

Matrix: (soil/water) WATER Lab Sample ID: 835218

Sample wt/vol: 1000 (g/mL) ML Lab File ID:

% Moisture: decanted: (Y/N) Date Received: 12/21/96

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted:12/23/96

Concentrated Extract Volume: 10000(uL) Date Analyzed: 12/31/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

319-84-6----alpha-BHC 0.050 ប 319-85-7-----beta-BHC 0.050 U 319-86-8-----delta-BHC 0.050 U 58-89-9-----gamma-BHC (Lindane) 0.050 U 76-44-8-----Heptachlor 0.050 U 0.050 U 309-00-2-----Aldrin 1024-57-3-----Heptachlor epoxide 0.050 U 959-98-8-----Endosulfan I_____ 0.050 U 60-57-1-----Dieldrin 0.10 U 72-55-9----4,4'-DDE 0.10 U 72-20-8-----Endrin 0.10 U 33213-65-9-----Endosulfan II_____ 0.10 U 72-54-8----4,4'-DDD 0.10 U 1031-07-3-----Endosulfan sulfate 0.10 U 50-29-3----4,4'-DDT 0.10 U 72-43-5-----Methoxychlor 0.50 U 53494-70-5----Endrin ketone 0.10 U 7421-93-4-----Endrin aldehyde 0.10 U 5103-71-9----alpha-Chlordane 0.050 U 5103-74-2----gamma-Chlordane 0.050 U \$001-35-2----Toxaphene 5.0 U 1.0 U 12674-11-2----Aroclor-1016 2.0 0 11104-28-2----Aroclor-1221 11141-16-5----Aroclor-1232 1.0 U 53469-21-9----Aroclor-1242 1.0 0

4.5

1.0 U

1.0 U

1.0 U

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EPA SAMPLE NO.

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM180

Matrix: (soil/water) WATER

Lab Sample ID: 835215

Sample wt/vol:

1000 (g/mL) NL

Lab File ID:

% Moisture: _____ decanted: (Y/N)___

Date Received: 12/21/96

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted:12/23/96

Concentrated Extract Volume: 10000(uL) Date Analyzed: 12/31/96

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:

CAS NO.

COMPOUND

(ug/L or ug/Kg) UG/L

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PESTICIDE ORGANICS ANALYSIS DATA SHEET

JM181

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009 Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM180 Lab Sample ID: 835214 Matrix: (soil/water) WATER Sample wt/vol: 1000 (g/mL) ML Lab File ID: % Moisture: decanted: (Y/N)___ Date Received: 12/21/96 Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 12/23/96 Concentrated Extract Volume: 10000(uL) Date Analyzed: 12/31/96 Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:
CAS NO. COMPOUND (ug/L or ug/Kg) UG/L 0

| | · | | |
|---------------------------------|------------------------------|----------------|-----|
| 319-84-6 | alpha-BHC | 0.050 | U |
| 319-85-7 | | 0.050 | |
| 319-86-8 | | 0.050 | |
| | gamma-BHC (Lindane) | 0.050 | |
| | Heptachlor | 0.050 | , |
| 309-00-2 | | 0.050 | 1 |
| | Heptachlor epoxide | 0.050 | 1 |
| | Endosulfan I | 0.050 | |
| 60-57-1 | | 0.10 | 1 |
| 72-55-9 | | 0.10 | |
| 72-20-8 | | 0.10 | 1 |
| | Endosulfan II | 0.10 | 1 |
| 72-54-8 | | 0.10 | I . |
| | Endosulfan sulfate | 0.10 | 1 |
| 50-29-3 | | 0.10 | 1 |
| | Nethoxychlor | 0.50 | |
| | Endrin ketone | — 0.30 0.10 | |
| | Endrin aldehyde | 0.10 | _ |
| | alpha-Chlordane | 0.050 | 1 |
| | gamma-Chlordane | 0.050 | 1 |
| 8001-35-2 | | — 5.0 5.0 | 1 |
| | Aroclor-1016 | —] 3.0 1.0 | ; |
| · - · · | Aroclor-1016 | - 2.0 | 1 |
| | Aroclor-1221 Aroclor-1232 | 1.0 | |
| | · · · · · | 1.0 | 1 |
| | Aroclor-1242 | | , |
| | Aroclor-1248 | 1.0 | |
| | Aroclor-1254 | 1.0 | 1 - |
| 11030-85-2 | Aroclor-1260 | 1.0 | JU |
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PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

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Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/L C

| 319-84-6alpha-BHC 319-85-7beta-BHC 319-86-8delta-BHC 58-89-9gamma-BHC (Lindane) 76-44-8Heptachlor 309-00-2Aldrin 1024-57-3Heptachlor epoxide 959-98-8Endosulfan I 60-57-1Dieldrin 72-55-94,4'-DDE 72-20-8Endosulfan II 72-54-84,4'-DDD 1031-07-8Endosulfan sulfate 50-29-34,4'-DDT 72-43-5Methoxychlor | 0.050 0.050 0.050 0.050 0.050 0.10 0.10 | ט ט ט ט ט ט ט ט ט ט ט ט ט ט ט ט ט ט ט |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|---------------------------------------------------------------------------------------------|
| 60-57-1Dieldrin | 0.10 | Ū |
| 72-20-8Endrin | 0.10 | U |
| 1031-07-8Endosulfan sulfate | 0.10 | U |
| | | U |
| 7421-93-4Endrin aldehyde 5103-71-9alpha-Chlordane 5103-74-2gamma-Chlordane | 0.10 0.050 0.050 | บ่ |
| 8001-35-2Toxaphene 12674-11-2Aroclor-1016 | 5.0 | U U |
| 11104-28-2Aroclor-1221 11141-16-5Aroclor-1232 53469-21-9Aroclor-1242 | 2.0 1.0 1.0 | U |
| 12672-29-6Aroclor-1248 11097-69-1Aroclor-1254 11096-82-5Aroclor-1260 | 1.0 | U U |
| | | |

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

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|--|-----|------|---|--|

EPA SAMPLE NO.

| Lab N | ame: | COMPUCTEM: | ENV. | CORP. |
|-------|------|------------|------|-------|
|-------|------|------------|------|-------|

Contract: 68D50009

| JM190 |
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| |

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM180

Matrix: (soil/water) WATER

Lab Sample ID: 835223

Sample wt/vol: 1000 (g/mL) mL Lab File ID: GH035223B60

Level: (low/med) LOW

Date Received: 12/21/96

% Moisture: decanted: (Y/N)___

Date Extracted:12/23/96

Concentrated Extract Volume: 1000(uL)

Date Analyzed: 12/24/96

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CONCENTRATION UNITS: Number TICs found: 2 (ug/L or ug/Kg) ug/L

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | |
|--------------------------|-------------------------------|------|------------|----------|
| 1. 108-93-0 2. | CYCLOHEXANOL UNKNOWN AMIDE | 5.36 | ł | J |
| 5. | | | | |
| 8. 9. 20. | | | | |
| 11. | | | | |
| 14. 15. 15. | | | | |
| 13. 19. 20. | | | | |
| 21. 22. 23. 24. | | | | |
| 25. 26. 27. | | | | |
| 29. 29. | | | | <u> </u> |



JM190

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Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM180

Matrix: (soil/water) WATER Lab Sample ID: 835223

Sample wt/vol: 1000 (g/mL) mL Lab File ID: GH035223B60

Level: (low/med) LOW Date Received: 12/21/96

% Moisture: ____ decanted: (Y/N) ___ Date Extracted:12/23/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 12/24/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.

CONCENTRATION UNITS:
COMPOUND (ug/L or ug/Kg) ug/L

25 U 51-28-5-----2,4-Dinitrophenol 100-02-7----4-Nitrophenol 25 U 132-64-9-----Dibenzofuran 10 U 121-14-2----2,4-Dinitrotoluene 10 U 84-66-2-----Diethylphthalate 10 U 7005-72-3----4-Chlorophenyl-phenylether 10 U 10 U 85-73-7-----Fluorene 25 U 100-01-6-----4-Nitroaniline 25 U 534-52-1-----4,6-Dinitro-2-methylphenol 85-30-6----N-nitrosodiphenylamine (1) 10 U 10 0 101-55-3-----4-Bromophenyl-phenylether 10 U 118-74-1-----Hexachlorobenzene 25 U 87-86-5-----Pentachlorophenol 10 U 85-01-8-----Phenanthrene 10 U 120-12-7-----Anthracene 86-74-S-----Carbazole 10 U 84-74-2-----Di-n-butylphthalate 10 0 10 U 206-44-0----Fluoranthene 10 U 129-00-0-----Pyrene S5-68-7-----Butylbenzylphthalate 10 U 91-94-1-----3,3'-Dichlorobenzidine 10 U 56-55-3-----Benzo(a)anthracene 10 l U 218-01-9-----Chrysene 10 U 10 U 117-S1-7-----bis(2-Ethylhexyl)phthalate 117-84-0-----Di-n-octylphthalate 10 U 205-99-2----Benzo(b) fluoranthene 10 U 10 U 207-08-9-----Benzo(k)fluoranthene

(1) - Cannot be separated from Diphenylamine

193-39-5----Indeno(1,2,3-cd)pyrene

53-70-3------Benzo (a, h) anthracene___ 191-24-2-----Benzo (g, h, i) perylene

50-32-8-----Benzo(a)pyrene

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10 U

10 U

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

JM190

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM180

Matrix: (soil/water) WATER Lab Sample ID: 835223

Sample wt/vol: 1000 (g/mL) mL Lab File ID: GH035223B60

Level: (low/med) LOW Date Received: 12/21/96

% Moisture: decanted: (Y/N) Date Extracted:12/23/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 12/24/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/L

| 108-95-2 | Phenol | 10 | U |
|-----------|----------------------------------------|------|-----|
| | bis(2-Chloroethyl)ether | 10 | U |
| | 2-Chlorophenol | 10 | |
| | 1,3-Dichlorobenzene | 10 | 1 |
| | 1,4-Dichlorobenzene | 10 | ſ |
| | 1,2-Dichlorobenzene | . 10 | 1 . |
| | 2-Methylphenol | 10 | |
| 108-60-1 | 2,2'-oxybis(1-Chloropropane) | 10 | |
| 1105-44-5 | 4-Methylphenol | 10 | 1 |
| | N-Nitroso-di-n-propylamine | 10 | 1 |
| | Hexachloroethane | 10 | ŧ |
| | Nitrobenzene | 10 | |
| | Isophorone | 10 | ı |
| | 2-Nitrophenol | 10 | |
| | 2,4-Dimethylphenol | 10 | ı |
| | bis(2-Chloroethoxy)methane | | ΰ. |
| | 2,4-Dichlorophenol | 10 | |
| | 1,2,4-Trichlorobenzene | 10 | Ū |
| | Naphthalene | 10 | |
| | 4-Chloroaniline | 10 | U |
| | Hexachlorobutadiene | 10 | U |
| | 4-Chloro-3-methylphenol | 10 | U |
| 91-57-6 | 2-Methylnaphthalene | 10 | U |
| | Hexachlorocyclopentadiene | 10 | U |
| | 2,4,6-Trichlorophenol | 10 | U |
| 95-95-4 | 2,4,5-Trichlorophenol | 25 | U |
| 91-58-7 | 2-Chloronaphthalene | 10 | |
| | 2-Nitroaniline | 25 | 1 |
| | Dimethylphthalate | 10 | - |
| | Acenaphthylene | 10 | i e |
| | 2,6-Dinitrotoluene | 10 | 1 |
| | 3-Nitroaniline | 25 | Ū |
| | Aconaphthene | 10 | U |
| | | / | |
| | ······································ | | · |

OLM03.0

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

| JM189 | |
|-------|--|
| 0203 | |

| Lab | Name: | COMPUCHEM | ENV. | CORP. | Contract: 68D50009 | · | | |
|-----|-------|-----------|------|------------|--------------------|-----|------------|---|
| Lab | Code: | CCMPU | Case | No.: 25253 | SAS No.: | SDG | No.: JM180 | • |

Matrix: (soil/water) WATER Lab Sample ID: 835222

Sample wt/vol: 1000 (g/mL) mL Lab File ID: GH035222B60

Level: (low/med) LOW Date Received: 12/21/96

% Moisture: ____ decanted: (Y/N) ___ Date Extracted:12/23/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 12/25/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

Number TICs found: 2 CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---------------------------------------------------------------------------------------------------------------------|--------------------------------------|----|-----------------------------------------|---|
| CAS NUMBER 1. 108-93-0 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. | CYCLOHEXANOL UNKNOWN CARBOXYLIC ACID | | ======================================= | 1 |
| 26. 27. 28. 29. | | | | |

EPA SAMPLE NO.

JM189

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.:

SDG No.: JM180

Matrix: (soil/water) WATER

Lab Sample ID: 835222

Sample wt/vol: 1000 (g/mL) mL

Lab File ID: GH035222B60

Level: (low/med) LOW

Date Received: 12/21/96

% Moisture: ____ decanted: (Y/N)___

Date Extracted:12/23/96

Concentrated Extract Volume: 1000(uL)

Date Analyzed: 12/25/96

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

| CAS NO. | COMPOUND | CONCENTR! (ug/L or | | | Q |
|------------------|------------------|-----------------------|-------------|-------------|-------|
| 51-28-5 | 2,4-Dinitroph | enol | | 2 | 5 U |
| | 4-Nitrophenol | | | | 5 บ |
| | Dibenzofuran | | | | οŪ |
| | 2,4-Dinitroto | luene | | | ΟŪ |
| | Diethylphthal | | | | υlo |
| | 4-Chloropheny | | = | | סוט |
| | Fluorene | | | 1 | ס ט |
| 100-01-6 | 4-Nitroanilin | e | | | 5 U |
| 534-52-1 | 4,6-Dinitro-2 | -methylphenol | | 2 | 5 U |
| | N-nitrosodiph | | | 1.0 | ט ע |
| 101-55-3 | 4-Bromophenyl | -phenylether | _ | 1 | บไซ |
| 118-74-1 | Hexachloroben | zene - | | 1 | ט כ |
| 87-86 - 5 | Pentachloroph | enol | | 2. | 5 บ |
| 85-01-8 | Phenanthrene | | | 1 | טוכ |
| | Anthracene | | | 10 | ט כ |
| | Carbazole | | | 10 | ט כ |
| 84-74-2 | Di-n-butylpht | halate | | 10 | ט ט |
| | Fluoranthene_ | | | 10 | ט ע |
| 129-00-0 | | | | 10 | ט ט |
| | Butylbenzylph | | | 10 | ט ט |
| | 3,3'-Dichloro | | | | ָ ט ט |
| 56-55-3 | Benzo(a)anthr | acene | | 10 | ט כ |
| | Chrysene | | | | ט ט |
| | bis(2-Ethylhe | | | | טעכ |
| | Di-n-octylpht | | | | o U |
| | Benzo(b)fluor | | | |) U · |
| | Benzo(k)fluor | | | | ט ט |
| | Benzo(a)pyren | | | | ס ט |
| | Indeno(1,2,3- | | · | | o U |
| | Dibenzo(a,h)a | | | | 0 U |
| 191-24-2 | Benzo(g,h,i)p | erylene | | 1 | 0 U |
| | separated from D | | l | | _ |

FORM I SV-2

OLM03.0

JM189

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM180

Matrix: (soil/water) WATER

Lab Sample ID: 835222

Sample wt/vol:

1000 (g/ml) ml

Lab File ID: GH035222B60

Level: (low/med) LOW

Date Received: 12/21/96

% Moisture: ____ decanted: (Y/N)__

Date Extracted:12/23/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 12/25/96

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

| CAS NO. | COMPOUND | • | (ug/L or ug/Kg) ug/L | Q |
|---------|----------|---|----------------------|---|
| | | | | |

| , | | |
|--------------------------------------|-------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 108-95-2Phenol | 10 | TI |
| 111-44-4bis(2-Chloroethyl)ether | 10 | 1 - |
| 95-57-S2-Chlorophenol | 10 | |
| 541-73-11,3-Dichlorobenzene | 10 | |
| 106-46-71,4-Dichlorobenzene | 10 | |
| 95-50-11,2-Dichlorobenzene | 10 | 1 |
| 95-48-72-Methylphenol | 10 | |
| 108-60-12,2'-oxybis(1-Chloropropane) | 10 | 1 1 |
| 106-44-54-Methylphenol | 10 | |
| 621-64-7N-Nitroso-di-n-propylamine | 10 | |
| 67-72-1Hexachloroethane | 10 | |
| 93-95-3Nitrobenzene | 10 | i i |
| 78-59-1Isophorone | 1 | |
| 88-75-52-Nitrophenol | 10 | |
| 105-67-92,4-Dimethylphenol | 10 | |
| 111-91-1bis(2-Chloroethoxy) methane | 10 | l |
| 120-83-22,4-Dichlorophenol | 10 | |
| 120-82-11,2,4-Trichlorobenzene | 10 | |
| 91-20-3Naphthalene | 10 | |
| 106-47-84-Chloroaniline | 10 | |
| 87-68-3Hexachlorobutadiene | t t | |
| 59-50-74-Chloro-3-methylphenol | 10 | - |
| 91-57-62-Methylnaphthalene | 10 | _ |
| 77-47-4Hexachlorocyclopentadiene | 10 | |
| SS-06-22,4,6-Trichlorophenol | 10 | The state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the s |
| 95-95-42,4,5-Trichlorophenol | 25 | |
| 91-58-72-Chloronaphthalene | 10 | |
| SS-74-42-Nitroaniline | r e | Ü |
| 131-11-3Dimethylphthalate | l i | _ |
| 208-96-8Acenaphthvlene | 1 | |
| 606-20-22,6-Dinitrotoluene | 1 - 1 | 1 1 |
| 99-09-23-Nitroaniline | 25 | , , |
| 83-32-9Acenaphthene | 10 | U |
| os sa sa calcipionome | | |
| | , , | ı. I |

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

| JM188 | |
|-------|--|
| | |

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM180

Matrix: (soil/water) WATER

Lab Sample ID: 835221

Sample wt/vol: 1000 (g/mL) mL

Lab File ID: GH035221B60

Level: (low/med) LOW

Date Received: 12/21/96

% Moisture: _____ decanted: (Y/N)___

Date Extracted:12/23/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 12/25/96

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N · pH: ____

Number TICs found: 4

CONCENTRATION UNITS: . (ug/L or ug/Kg) ug/L

| CAS NUMBER | • | · RT | EST. CONC. | 1 ~ 1 |
|---------------------------------------------------------------------------|---|---------------------------------|-----------------------------------------|-------------|
| 1. 108-93-0 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. | · | 5.36 15.16 19.88 20.03 | ======================================= | ===== NJ |
| 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. | | | | |
| 26. 27. 28. 29. 30. | | | | |

EPA SAMPLE NO.

JM188

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU

Case No.: 25253 SAS No.:

SDG No.: JM180

Matrix: (soil/water) WATER

Lab Sample ID: 835221

Sample wt/vol: 1000 (g/mL) mL Lab File ID: GH035221B60

Level: (low/med) LOW

Date Received: 12/21/96

% Moisture: decanted: (Y/N) Date Extracted:12/23/96

CAS NO.

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 12/25/96

Injection Volume:

2.0(uL)

COMPOUND

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L

| | · · · · · · · · · · · · · · · · · · · | |
|-------------------------------------|---------------------------------------|-------------|
| 51-28-52,4-Dinitrophenol | . 25 | 111 |
| 100-02-74-Nitrophenol . | 25 | |
| 132-64-9Dibenzofuran | 10 | 1 |
| 121-14-22,4-Dinitrotoluene | 10 | 1 |
| 84-66-2Diethylphthalate | 10 | 1 |
| 7005-72-34-Chlorophenyl-phenylether | 10 | |
| 86-73-7Fluorene | 10 | 1 |
| 100-01-64-Nitroaniline | 25 | 1 |
| 534-52-14,6-Dinitro-2-methylphenol | 25 | |
| | 10 | b. |
| 86-30-6N-nitrosodiphenylamine (1) | , | |
| 101-55-34-Bromophenyl-phenylether | 10 | ľ |
| 118-74-1Hexachlorobenzene | . 10 | l . |
| 87-86-5Pentachlorophenol | 25 | 1 |
| 85-01-8Phenanthrene | 10 | |
| 120-12-7Anthracene | 10 | t . |
| 86-74-8Carbazole | 10 | |
| 84-74-2Di-n-butylphthalate | 10 | |
| 205-44-0Fluoranthene | 10 | |
| 129-00-0Pyrene | 10 | Ŭ |
| 85-68-7Butylbenzylphthalate | 10 | , |
| 91-94-13,3'-Dichlorobenzidine | 10 | U |
| 56-55-3Benzo (a) anthracene | 10 | U |
| 218-01-9Chrysene | 10 | U |
| 117-81-7bis(2-Ethylhexyl)phthalate | 10 | U |
| 117-84-0Di-n-octylphthalate | . 10 | บ |
| 205-99-2Benzo(b) fluoranthene | · 10 | U |
| 207-08-9Benzo(k) fluoranthene | 10 | U |
| 50-32-8Benzo(a)pyrene | 10 | U |
| 193-39-5Indeno(1,2,3-cd)pyrene | 10 | |
| 53-70-3Dibenzo(a,h)anthracene | 10 | U |
| 191-24-2Benzo(g,h,i)perylene | 10 | 1 |
| | | |
| | · | |

JM189

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

GPC Cleanup: (Y/N) N pH: ____

SDG No.: JM180 Lab Code: CCMPU Case No.: 25253 SAS No.:

Matrix: (soil/water) WATER Lab Sample ID: 835221

Sample wt/vol: 1000 (g/mL) mL Lab File ID: GH035221B60

Date Received: 12/21/96 Level: (low/med) LOW

% Moisture: decanted: (Y/N)___ Date Extracted:12/23/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 12/25/96

Dilution Factor: 1.0 Injection Volume: 2.0(uL)

CONCENTRATION UNITS: CAS NO. COMPOUND (ug/I, or ug/Kg) ug/I,

| CAS NO. | COMPOUND (ug | /r or ug/kg/ | ug/L | Q |
|----------|-----------------------|---------------|------|----|
| 108-95-2 | Phenol | | 1.0 | U |
| | bis(2-Chloroethyl)et | her | | Ū |
| 95-57-8 | 2-Chlorophenol | | | Ū |
| 541-73-1 | 1,3-Dichlorobenzene | | | Ū |
| 105-45-7 | 1,4-Dichlorobenzene_ | | | Ū. |
| 95-50-1 | 1,2-Dichlorobenzene | | | Ū |
| 95-48-7 | 2-Methylphenol | . | | บี |
| 108-60-1 | 2,2'-oxybis(1-Chloro | propagal | | Ū |
| | 4-Methylphenol | DI ODGINC/ | | U |
| | N-Nitroso-di-n-propy. | lamina | | Ū |
| 521-0/ | Hexachloroethane | - amiline— | | บี |
| 00 05 0 | Nitrobenzene | | | U |
| | Isophorone | | | Ü |
| | | | | |
| | 2-Nitrophenol | | | U |
| 105-67-9 | 2,4-Dimethylphenol | | | U |
| | bis(2-Chloroethoxy)ma | etnane | | U |
| 120-83-2 | 2,4-Dichlorophenol | | | U |
| | 1,2,4-Trichlorobenzer | ne | | U |
| | Naphthalene | | | U |
| | 4-Chloroaniline | | | U |
| | Hexachlorobutadiene | | | U |
| | 4-Chloro-3-methylpher | nol | | U |
| | 2-Methylnaphthalene_ | | 10 | U |
| 77-47-4 | Hexachlorocyclopentac | diene | 10 | U |
| 88-06-2 | 2,4,6-Trichlorophenol | 1 | 10 | U |
| 95-95-4 | 2,4,5-Trichlorophenol | 1 | 25 | U |
| 91-58-7 | 2-Chloronaphthalene_ | | 10 | U |
| 88-74-4 | 2-Nitroaniline | | · 25 | U |
| 131-11-3 | Dimethylphthalate | | 10 | U |
| 208-95-8 | Acenaphthylene | | | U |
| 606-20-2 | 2,6-Dinitrotoluene | | | Ū |
| 99-09-3 | 3-Nicroaniline | | | U |
| | Acenaphthene | | | טו |
| • | | | | |
| | | | • | 4 |

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

| JM187 | |
|-------|--|
| | |

| T.='0 | Name . | COMPUCHEM | FMV | CCDD |
|-------|----------|-----------|-----|----------|
| _:=_ | :\=:::=: | | | -coic z. |

Contract: 68D50009

Lab Code: CCMPU Case No.: 25253 SAS No.: , SDG No.: JM180

Matrix: (soil/water) WATER

Lab Sample ID: 835220

Sample wt/vol: 1000 (g/mL) mL

Lab File ID: GH035220B60

Level: (low/med) LOW .

Date Received: 12/21/96

% Moisture: ____ decanted: (Y/N)___

Date Extracted:12/23/96

Concentrated Extract Volume:

1000 (uL) Date Analyzed: 12/25/96

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

: Ha

CONCENTRATION UNITS: Number TICs found: 0 (ug/L or ug/Kg) ug/L

EPA SAMPLE NO.

JM187

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM180

Matrix: (soil/water) WATER Lab Sample ID: 835220

Sample wt/vol: 1000 (g/mL) mL Lab File ID: GH035220B60

Level: (low/med) LOW Date Received: 12/21/96

計 Moisture: decanted: (Y/N) Date Extracted:12/23/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 12/25/96

Dilution Factor: 1.0 Injection Volume: 2.0(uL)

GPC Cleanup: (Y/N) N pH:

CONCENTRATION UNITS: CAS NO. COMPOUND (ug/L or ug/Kg) ug/L

| | (49/2 01 49/1 | 3/ 43/2 | ~ |
|-----------|----------------------------|---------|----|
| 51-28-5 | 2,4-Dinitrophenol | 25 | 11 |
| | 4-Nitrophenol | 25 | |
| | Dibenzofuran | 10 | |
| | 2,4-Dinitrotoluene | 10 | |
| | Diethylphthalate | 10 | i |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 10 | |
| \$6-73-7 | Fluorene | 10 | |
| | 4-Nitroaniline | 25 | |
| | 4,6-Dinitro-2-methylphenol | 25 | |
| 86-30-5 | N-nitrosodiphenylamine (1) | 10 | |
| 101-55-3 | 4-Bromophenyl-phenylether | 10 | |
| 118-74-1 | Hexachlorobenzene | 10 | |
| | Pentachlorophenol | 25 | |
| | Phenanthrene | 10 | |
| | Anthracene | 10 | |
| 85-74-8 | | 10 | |
| | Di-n-butylphthalate | 10 | |
| | Fluoranthene | 10 | |
| 129-00-0 | | 10 | |
| | Butylbenzylphthalate | 10 | |
| 91-94-1 | 3,3'-Dichlorobenzidine | 10 | |
| | Benzo(a) anthracene | 10 | U |
| 218-01-9 | Chrvsene | 10 | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | 10 | U |
| 117-84-0 | Di-n-octylphthalate | 10 | U |
| 205-99-2 | Benzo(b) fluoranthene | 10 | U |
| 207-08-9 | Benzo(k) fluoranthene | 10 | U |
| 50-32-8 | Benzo(a) pyrene | 10 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 10 | U |
| 53-70-3 | Dibenzo(a,h)anthracene | 10 | U |
| | Benzo(g,h,i)perylene | 10 | Ŭ. |
| l | | | |

(1) - Cannot be separated from Diphenylamine

EPA SAMPLE NO.

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM180

Matrix: (soil/water) WATER

Lab Sample ID: 835220

Sample wt/vol: 1000 (g/mL) mL

Lab File ID: GH035220B60

Level: (low/med) LOW

Date Received: 12/21/96

% Moisture: decanted: (Y/N) Date Extracted:12/23/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 12/25/96

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CONCENTRATION UNITS:

CAS NO.

COMPOUND

(ug/L or ug/Kg) ug/L

| | | |
|--------------------------------------|-------------|--------------|
| 108-95-2Phenol | 10 | ן ט |
| 111-44-4bis(2-Chloroethyl)ether | 10 | |
| 95-57-82-Chlorophenol | 10 | 1 - 1 |
| 541-73-11,3-Dichlorobenzene | 10 | ! - ! |
| 106-46-71,4-Dichlorobenzene | 10 | 1 |
| 95-50-11,2-Dichlorobenzene | 10 | - 1 |
| 95-48-72-Methylphenol | 10 | 1 |
| 103-60-12,2'-oxybis(1-Chloropropane) | 10 | 1 |
| 106-44-54-Methylphenol | 10 | 1 - 1 |
| 621-64-7N-Nitroso-di-n-propylamine | 10 | i I |
| 67-72-1Hexachloroethane | 10 | |
| 98-95-3Nitrobenzene | 10 | |
| 78-59-1Isophorone | | 1 1 |
| | 10 | 1 1 |
| 88-75-52-Nitrophenol | 10 | |
| 105-67-92,4-Dimethylphenol | 10 | ָּט |
| 111-91-1bis(2-Chloroethoxy)methane | 10 | Ŭ |
| 120-83-22,4-Dichlorophenol | 10 | 1 |
| 120-82-11,2,4-Trichlorobenzene | 10 | |
| 91-20-3Naphthalene | . 10 | |
| 106-47-84-Chloroaniline | 10 | |
| 87-68-3Hexachlorobutadiene | 10 | U |
| 59-50-74-Chloro-3-methylphenol | 10 | |
| 91-57-62-Methylnaphthalene | 10 | _ |
| 77-47-4Hexachlorocyclopentadiene | 10 | U |
| 88-06-22,4,5-Trichlorophenol | 10 | U |
| 95-95-42,4,5-Trichlorophenol | 25 | Ū . |
| 91-58-72-Chloronaphthalene | 10 | Ū |
| 88-74-42-Nitroaniline | 25 | U |
| 131-11-3Dimethylphthalate | 10 | ט |
| 208-96-3Acenaphthylene | . 10 | |
| 606-20-22,6-Dinitrotoluene | 10 | 1 |
| 99-09-23-Nitroaniline | 25 | Ū |
| 83-32-9Acenaphthene | ' I | Ū |
| | 10 | ا ر ا |
| | | اا |

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

| | | JM185 |
|-----------|----------|-------|
| Contract: | 68D50009 | |

| Lab | Name | : | COMPUCEM | ENV. | CORP. |
|-----|------|---|----------|------|-------|
|-----|------|---|----------|------|-------|

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM180

Matrix: (soil/water) WATER

Lab Sample ID: 835219

Sample wt/vol:

1000 (g/mľ) ան

Lab File ID: GH035219B60

Level: (low/med)

LOW

Date Received: 12/21/96

% Moisture: decanted: (Y/N)

Date Extracted:12/23/96

Concentrated Extract Volume: 1000(uL)

Number TICs found: 1

Date Analyzed: 12/25/96

Injection Volume: 2.0(证)

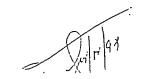
Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

: Ha

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|-------------------------------------------------------------------------------------------------|---------------|----|------------|------|
| 1. 108-93-0 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. | | 1 | EST. CONC. | ==== |
| 23. | | | | |



| JM185 | |
|--------|--|
| 0.1200 | |

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM180

Matrix: (soil/water) WATER

Lab Sample ID: 835219

Sample wt/vol: 1000 (g/mL) mL Lab File ID: GH035219B60

Level: (low/med) LOW

Date Received: 12/21/96

% Moisture: ____ decanted: (Y/N) ___ Date Extracted:12/23/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 12/25/96

CAS NO.

Injection Volume: · 2.0(uL)

COMPOUND

Dilution Factor: 1.0

GPC Cleanup; (Y/N) N pH:

| | COMCEMIL | CALLON O | MITIOI | |
|---|----------|----------|--------|---|
| • | (ug/L or | ug/Kg) | ug/L | Q |
| • | | | | |

| | | T | |
|----------|----------------------------|------|-----|
| 51-28-5 | 2,4-Dinitrophenol | 25 | U |
| | 4-Nitrophenol | | Ū |
| | Dibenzofuran | . • | U |
| 121-14-2 | 2,4-Dinitrotoluene | | U |
| | Diethylphthalate | 10 | |
| | 4-Chlorophenyl-phenylether | 10 | |
| 86-73-7 | | 10 | 1 - |
| | 4-Nitroaniline | 25 | |
| | 4,6-Dinitro-2-methylphenol | 25 | |
| | N-nitrosodiphenylamine (1) | 10 | 1 |
| | 4-Bromophenyl-phenylether | 10 | 1 |
| | Hexachlorobenzene | 10 | _ |
| | Pentachlorophenol | 25 | |
| | Phenanthrene | 10 | |
| | Anthracene | 10 | |
| 86-74-8 | · | 10 | , |
| 84-74-2 | Di-n-butylphthalate | 10 | 4 |
| | Fluoranthene | 10 | |
| 129-00-0 | | 10 | Ū |
| | Butylbenzylphthalate | 10 | 1 |
| 91-94-1 | 3,3'-Dichlorobenzidine | . 10 | υ |
| | Benzo(a) anthracene | 10 | |
| 218-01-9 | | 10 | 1 |
| | bis(2-Ethylhexyl)phthalate | - 10 | ับ |
| | Di-n-octylphthalate | 10 | บ |
| | Benzo(b) fluoranthene | 10 | U |
| 207-08-9 | Benzo(k)fluoranthene | 10 | U |
| | Benzo(a) ovrene | 10 | U. |
| | Indeno(1,2,3-cd)pyrene | 10 | U |
| 53-70-3 | Dibenzo(a,h)anthracene | 10 | U |
| 191-24-2 | Benzo(g,h,i)perylene | 10 | U |
| | | | |

FORM I SV-2

JM186

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM180

Lab Sample ID: 835219 Matrix: (soil/water) WATER

Sample wt/vol: 1000 (g/mL) mL Lab File ID: GH035219B60

Level: (low/med) LOW Date Received: 12/21/96

% Moisture: _____ decanted: (Y/N) ____ Date Extracted:12/23/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 12/25/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

| | | CONCENTRATION UNITS: | |
|---------|----------|----------------------|---|
| CAS NO. | COMPOUND | (ug/L or ug/Kg) ug/L | Q |

| 108-95-2Phenol | 10 | IJ |
|--------------------------------------|------|----------|
| 111-44-4bis(2-Chloroethyl)ether | 10 | 1 |
| 95-57-82-Chlorophenol | 10 | |
| 541-73-11,3-Dichlorobenzene | 10 | 1 |
| 106-46-71,4-Dichlorobenzene | 10 | 1 |
| 95-50-11,2-Dichlorobenzene | 10 | E . |
| 95-48-72-Methylphenol | 10 | 1 |
| 103-60-12,2'-oxybis(1-Chloropropane) | 10 | U |
| 106-44-54-Methylphenol | 10 | U |
| 621-64-7N-Nitroso-di-n-propylamine | 10 | ט |
| 67-72-1Hexachloroethane | 10 | Ū |
| 98-95-3Nitrobenzene | 10 | U |
| 78-59-1Isophorone | 10 | U |
| 88-75-52-Nitrophenol | 10 | Ū |
| 105-67-92,4-Dimethylphenol | 10 | U |
| 111-91-1bis(2-Chloroethoxy)methane | 10 | U |
| 120-83-22,4-Dichlorophenol | 10 | U |
| 120-82-11,2,4-Trichlorobenzene | 10 | U |
| 91-20-3Naphthalene | 10 | U |
| 106-47-84-Chloroaniline | 10 | U |
| 87-68-3Hexachlorobutadiene | 10 | U |
| 59-50-74-Chloro-3-methylphenol | 10 | |
| 91-57-62-Methylnaphthalene | 10 | |
| 77-47-4Hexachlorocyclopentadiene | 10 | |
| SS-06-22,4,6-Trichlorophenol | 10 | |
| 95-95-42,4,5-Trichlorophenol | . 25 | |
| 91-58-72-Chloronaphthalene | 10 | |
| SS-74-42-Nitroaniline | . 25 | |
| 131-11-3Dimethylphthalate | 10 | |
| 208-96-8Acenaphthylene | 10 | |
| 606-20-22,6-Dinitrotoluene | . 10 | |
| 99-09-23-Nitroaniline | 25 | _ |
| 83-32-9Acenaphthene | 10 | U |
| | | |

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

JM185

| Lab | Name: | COMPUCHEM | ENV. | CORP. |
|-----|-------|-----------|------|-------|
|-----|-------|-----------|------|-------|

Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM180

Matrix: (soil/water) WATER

Lab Sample ID: 835218

Sample wt/vol: 1000 (g/mL) mL

Lab File ID: GH035218360

Level: (low/med) LOW

Date Received: 12/21/96

% Moiscure: ____ decanted: (Y/N) -_

Date Extracted:12/23/96

Concentrated Extract Volume: 1000(uL)

Date Analyzed: 12/25/96

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH:

Number TICs found: 1

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|------------------------------------------------|---------------|---------------------------------------|------------|----|
| 1. 108-93-0 | CYCLOHEXANOL | 5.36 | | NJ |
| 3. | | | | |
| 5. 5. | | | | |
| 7. 3. | | | | |
| 9. <u>. </u> | | | | |
| 11. 12. 13. | | | | |
| 14. | | | | |
| 16. | | | | |
| 15. | | | · | |
| 20. | | | | |
| 23. | | | | |
| 25. 25. | | | | |
| 27. 28. | | · · · · · · · · · · · · · · · · · · · | | |
| 29. 30. | | | | |

EPA SAMPLE NO.

JM185

Lab Name: COMPUCHEM ENV. CORP.

GPC Cleanup: (Y/N) N pH: ____

Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM180

Matrix: (soil/water) WATER Lab Sample ID: 835218

Sample wt/vol: 1000 (g/mL) mL Lab File ID: GH035218B60

Level: (low/med) LOW Date Received: 12/21/96

% Moisture: decanted: (Y/N). Date Extracted:12/23/96.

Concentrated Extract Volume: 1000(uL) Date Analyzed: 12/25/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

injection volume.

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/L Q

| | · | | |
|----------|----------------------------|----|-----|
| 51-28-5 | 2,4-Dinitrophenol | 25 | U |
| | 4-Nitrophenol | 25 | |
| | Dibenzofuran | 10 | 1 . |
| | 2,4-Dinitrotoluene | 10 | l . |
| | Diethylphthalate | 10 | 1 |
| | 4-Chlorophenyl-phenylether | 10 | 1 |
| \$6-73-7 | Fluorene | 10 | 1 |
| | 4-Nitroaniline | 25 | |
| | 4,6-Dinitro-2-methylphenol | 25 | • |
| | N-nitrosodiphenvlamine (1) | 10 | |
| | 4-Bromophenvl-phenylether | 10 | 4 |
| | Hexachlorobenzene | 10 | ı |
| | Pentachlorophenol | 25 | |
| | Phenanthrene | 10 | i . |
| | Anthracene | 10 | 1 |
| 86-74-8 | | 10 | 1 - |
| | Di-n-butvlphthalate | 10 | 1 |
| | Fluoranthene | 10 | ŀ |
| 129-00-0 | | 10 | 1 |
| | Butvlbenzylphthalate | 10 | • |
| | 3,3'-Dichlorobenzidine | 10 | 1 |
| | Benzo(a)anthracene | 10 | 1 |
| 218-01-9 | | 10 | I . |
| | bis(2-Ethylhexyl)phthalate | 1 | J |
| 117-84-0 | Di-n-octvlohthalate | 10 | Ū |
| | Benzo(b) fluoranthene | 10 | 1 |
| | Benzo(k)fluoranthene | 10 | 4 |
| | Benzo(a) ovrene | 10 | 1 |
| | Indeno(1,2,3-cd)pyrene | 10 | i |
| 53-70-3 | Dibenzo (a, h) anthracene | 10 | 3 |
| | Benzo(g,h,i)perylene | 10 | L |
| | | . | l |

(1) - Cannot be separated from Diphenylamine

EPA SAMPLE NO.

JM185

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM180

Matrix: (soil/water) WATER

Lab Sample ID: 835218

Sample wt/vol:

1000 (g/mL) mL

Lab File ID: GH035218B60

Level: (low/med) LOW

Date Received: 12/21/96

% Moisture: ____ decanted: (Y/N)___ Date Extracted:12/23/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 12/25/96

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

| | CAS NO. | COMPOUND | CONCENTRATION (ug/L or ug/ | | Q |
|---|-------------|------------------------------|----------------------------|-----|-----|
| | 108-95-2 | -Phenol -bis(2-Chloroethy | l)ether | 10 | |
| } | 95-57-8 | <u> </u> | | 10 | U |
| 1 | C 4 3 C 3 3 | a a Dieplanahana | | ם ח | 177 |

| | i iii-ff-f-f-f-f-f-f-f-f-f-f-f-f-f-f-f-f | 1 | |
|---|------------------------------------------|------|----------|
| | 95-57-S2-Chlorophenol | 10 | U [|
| | 541-73-11,3-Dichlorobenzene | · 10 | U |
| | 105-45-71,4-Dichlorobenzene | 10 | ט |
| | 95-50-11,2-Dichlorobenzene | 10 | U |
| ļ | 95-48-72-Methylphenol | 10 | U |
| į | 108-50-12,2'-oxybis(1-Chloropropane) | 10 | U |
| | 106-44-54-Methylphenol | 10 | U |
| | 621-64-7N-Nitroso-di-n-propylamine | 10 | U |
| | 67-72-1Hexachloroethane | 10 | U |
| - | 98-95-3Nitrobenzene | 10 | U |
| | 78-59-1Isophorone | 10 | U |
| 1 | SS-75-52-Nitrophenol | 10 | ט |
| 1 | 105-67-92,4-Dimethylphenol | 10 | U |
| ١ | 111-91-1bis(2-Chloroethoxy) methane | 10 | U |
| 1 | 120-83-22,4-Dichlorophenol | 10 | U |
| | 120-82-11,2,4-Trichlorobenzene | 10 | U |
| ĺ | 91-20-3Naphthalene | 10 | U |
| 1 | 105-47-84-Chloroaniline | 10 | U |
| l | 87-68-3Hexachlorobutadiene | 10 | U |
| į | 59-50-74-Chloro-3-methylphenol | 10 | U |
| | 91-57-62-Methylnaphthalene | 10 | U |
| 1 | 77-47-4Hexachlorocyclopentadiene | 10 | U. |
| i | 8S-06-22,4,6-Trichlorophenol | 10 | U |
| İ | 95-95-42,4,5-Trichlorophenol | 25 | U |
| } | 91-58-72-Chloronaphthalene | 10 | U |
| } | SS-74-42-Nitroaniline | 25 | U |
| 1 | 131-11-3Dimethylphthalate | 10 | U |
| | 208-96-8Acenaphthylene | 10 | U |
| ĺ | 606-20-22,6-Dinitrotoluene | 10 | U |
| i | 99-09-23-Nitroaniline | 25 | U I |

10 0

83-32-9-----Acenaphthene

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

JM182 Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM180

Matrix: (soil/water) WATER

Lab Sample ID: 835215

Sample wt/vol: 1000 (q/mL) mL

Lab File ID: GH035215B60

Level: (low/med) LOW

Date Received: 12/21/96

ኛ Moisture: ____ decanted: (Y/N)___

Date Extracted: 12/23/96

Concentrated Extract Volume: 1000(uL)

Date Analyzed: 12/25/96

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

Number TICs found: 1

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L

| CAS NUMBER | | RT | EST. CONC. | Q |
|--------------|--------------|------|------------|------------|
| 1. 108-93-0 | CYCLOHEXANOL | 5.36 | 5 | ==== NJ |
| 2. 3. | | | | |
| 4 . 5 . | | | | |
| 5 . | | | | |
| 7. 3. | | | | |
| 9. | | | | |
| 11. | | | | |
| 12. | | | | |
| 14. | | | | |
| 16. | | | | |
| 17. 13. | | | | |
| 19. | | | | |
| - 41 | | | | |
| 22. 23. | | | | |
| 24 . 25 . | | | | |
| 25. | | | | |
| 27. 28. | | | | |
| 29. 30. | | | | |
| | | | | |

EPA SAMPLE NO.

JM182

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM180

Lab Sample ID: 835215 Matrix: (soil/water) WATER

Sample wt/vol: 1000 (g/mL) mL Lab File ID: GH035215B60

Level: (low/med) LOW Date Received: 12/21/96

% Moisture: decanted: (Y/N) Date Extracted:12/23/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 12/25/96

Dilution Factor: 1.0 Injection Volume: 2.0(uL)

GPC Cleanup: (Y/N) N pH:

CONCENTRATION UNITS: CAS NO. COMPOUND (ug/L or ug/Kg) ug/L

| 51-28-5 | 2,4-Dinitrophenol | 25 | U |
|-------------|------------------------------|------|-------------|
| | 4-Nitrophenol | 25 | 1 |
| | Dibenzofuran | 10 | |
| | 2,4-Dinitrotoluene | 10 | |
| | Diethylphthalate | 10 | |
| | 4-Chlorophenyl-phenylether | 10 | |
| | Fluorene | 10 | |
| | 4-Nitroaniline | 25 | |
| | 4,6-Dinitro-2-methylphenol | 25 | |
| | N-nitrosodiphenylamine (1) | 10 | |
| | 4-Bromophenyl-phenylether | 10 | |
| | Hexachlorobenzene | | |
| | | . 10 | |
| | Pentachlorophenol | 25 | |
| | Phenanthrene_ | 10 | |
| | Anthracene | 10 | |
| | Carbazole | 10 | |
| | Di-n-butylphthalate | 10 | |
| | Fluoranthene | 10 | |
| 129-00-0 | | 10 | |
| | Butylbenzylphthalate | 10 | |
| | 3,3'-Dichlorobenzidine | 10 | |
| | Benzo(a)anthracene | 10 | |
| 218-01-9 | | . 10 | |
| | bis(2-Ethylhexyl)phthalate | 10 | |
| | Di-n-octylphthalate | 10 | |
| 205-99-2 | Benzo(b) fluoranthene | 10 | U |
| 207-08-9 | Benzo(k)fluoranthene | 10 | U |
| 50-32-8 | Benzo(a)pyrene | 10 | U |
| | Indeno (1, 2, 3-cd) pyrene | 10 | U |
| | Dibenzo(a,h)anthracene | 10 | U |
| • | Benzo(q,h,i)perylene | 10 | |
| | | | |
| - Cannot be | separated from Diphenylamine | ' | |
| | | | |

JM182

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM180

Matrix: (soil/water) WATER

Lab Sample ID: 835215

Sample wt/vol: 1000 (g/mL) mL

Lab File ID: GH035215B60

Level: (low/med) LOW

Date Received: 12/21/96

% Moisture: _____ decanted: (Y/N) ___ Date Extracted:12/23/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 12/25/96

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

| CAS NO. | COMPOUND (ug/L or ug | /Kg) ug/L | Q |
|----------|----------------------------------------|-----------|----------|
| 108-95-2 | Phenol | 10 | U |
| 111-44-4 | bis(2-Chloroethyl)ether . | 10 | U |
| | 2-Chlorophenol | 10 | U |
| 541-73-1 | 1,3-Dichlorobenzene | 10 | U |
| | 1,4-Dichlorobenzene | | U |
| | 1,2-Dichlorobenzene | | U |
| 95-48-7 | 2-Methylphenol | , | U |
| | 2,2'-oxybis(1-Chloropropane) | 10 | 4 |
| 105-44-5 | 4-Methylphenol | 10 | 1 |
| | N-Nitroso-di-n-propylamine | t . | U |
| 67-72-1 | Hexachloroethane | 10 | 1 |
| 98-95-3 | Nitrobenzene | | U |
| | Isophorone | . 10 | |
| | 2-Nitrophenol | | Ū |
| | 2,4-Dimethylphenol | 10 | |
| | bis(2-Chloroethoxy)methane | 10 | |
| 120-83-2 | 2,4-Dichlorophenol | 10 | |
| 120-82-1 | 1,2,4-Trichlorobenzene | 10 | 1 |
| | Naphthalenē | 10 | |
| | 4-Chloroaniline | 10 | |
| | Hexachlorobutadiene | 10 | 1 |
| | 4-Chloro-3-methylphenol | 10 | |
| | 2-Nethylnaphthalene | 10 | |
| | Hexachlorocyclopentadiene | 10 | |
| 88-06-2 | 2,4,6-Trichlorophenol | 10 | |
| 95-95-4 | 2,4,5-Trichlorophenol | . 25 | |
| 91-58-7 | 2-Chloronaphthalene | 10 | 1 |
| | 2-Nitroaniline | 25 | |
| | Dimethylphthalate | 10 | 3 |
| | Acenaphthylene | 10 | |
| 606-20-2 | 2,6-Dinitrotoluene | 10 | I |
| 99-09-7 | 2 11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | 25 | |
| | Acenaphthene | 10 | 1 |
| | Accelerations to | 1 | 1 |
| | | 1 | . |

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

| JM181 | |
|-------|--|
| • | |

Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.:

SDG No.: JM180

Matrix: (soil/water) WATER

Lab Sample ID: 835214

Sample wt/vol:

1000 (g/mL) mL

Lab File ID: GH035214B60

Level: (low/med) LOW

Date Received: 12/21/96

% Moisture: _____ decanted: (Y/N) ___ Date Extracted:12/23/96

Concentrated Extract Volume:

1000 (uL)

Date Analyzed: 12/24/96

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

Number TICs found: 1

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | 0 |
|--------------|---------------|------|-----------------------------------------|-------------|
| 1. 108-93-0 | 1 | 5.36 | ======================================= | ~ |
| 2 | | | | |
| 3. 4. | | | | |
| 5 | | | | |
| 7. | | | | |
| \$ 9. | | | | |
| 10. | | | | |
| 11. | | | | |
| 13. 14. | | | | |
| 15. | | | | |
| 15. 17. | | | | |
| 18. 19. | | | | |
| 20 | | | | |
| 22. | | | | |
| 23 . 24 . | | | | |
| 25. | | | | |
| 26. 27. | | | | |
| 28. 29. | | | | · |
| 30. | | | | |

EPA SAMPLE NO.

JM181

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM180

Matrix: (soil/water) WATER Lab Sample ID: 835214

Sample wt/vol: 1000 (g/mL) mL Lab File ID: GH035214B60

Level: (low/med) LOW Date Received: 12/21/96

% Moisture: ____ decanted: (Y/N)___ Date Extracted:12/23/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 12/24/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/L Q

| | <u> </u> | , | , - |
|------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|----------------------|
| 100-02-7 | 4-Nitroaniline4,6-Dinitro-2-methylphenol4,6-Dinitro-2-methylphenol4-Sromophenyl-phenylether4-Bromophenyl-phenyletherHexachlorobenzenePentachlorophenolPhenanthreneCarbazoleDi-n-butylphthalateFluoranthenePyreneButylbenzylphthalate3,3'-DichlorobenzidineBenzo(a)anthraceneChrysenebis(2-Ethylhexyl)phthalate | 25 25 10 10 10 10 25 25 10 10 10 10 10 10 10 | ממממממממממממממממממממ |
| \$6-74-\$ \$4-74-2 206-44-0 129-00-0 \$5-6\$-7 91-94-1 56-55-3 21\$-01-9 117-\$1-7 | CarbazoleDi-n-butylphthalateFluoranthenePyreneButylbenzylphthalate3,3'-DichlorobenzidineBenzo(a)anthraceneChrysenebis(2-Ethylhexyl)phthalate | 10 10 10 10 10 10 | ם ם ם ם ם ם ם |
| 117-84-0 205-99-2 207-08-9 50-32-8 193-39-5 53-70-3 | | 10 10 10 10 10 10 | ם ם ם ם |

(1) - Cannot be separated from Diphenylamine

A Property of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Con

| JM181 | - |
|-------|---|
|-------|---|

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM180

Matrix: (soil/water) WATER

Lab Sample ID: 835214

Sample wt/vol: 1000 (g/mL) mL Lab File ID: GH035214B60

Level: (low/med) LOW

Date Received: 12/21/96

% Moisture: ____ decanted: (Y/N)____

Date Extracted:12/23/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 12/24/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO. COMPOUND

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L

| · | | |
|--------------------------------------|------|-------|
| 108-95-2Phenol | 10 | 77. |
| 111-44-4bis(2-Chloroethyl)ether | 10 | 1 - 1 |
| .95-57-82-Chlorophenol | 10 | |
| 541-73-11,3-Dichlorobenzene | 10 | 1 |
| 105-45-71,4-Dichlorobenzene | 10 | |
| 95-50-11,2-Dichlorobenzene | 10 | |
| 95-48-72-Methylphenol | 10 | - 1 |
| 103-60-12,2'-oxybis(1-Chloropropane) | 10 | - |
| 106-44-54-Mathylphenol | 10 | - 1 |
| 621-64-7N-Nitroso-di-n-propylamine | 10 | - 1 |
| 67-72-1Hexachloroethane | 10 | - 1 |
| 98-95-3Nitrobenzene | 10 | 1 |
| 78-59-1Isophorone | 10 | - |
| 88-75-52-Nitrophenol | 10 | |
| 105-67-92,4-Dimethylphenol | | |
| 111-91-1bis(2-Chloroethoxy)methane |) | Ū |
| 120-S3-22,4-Dichlorophenol | 10 | - 1 |
| 120-82-11,2,4-Trichlorobenzene | 10 | |
| 91-20-3Naphthalene | 10 | |
| 106-47-84-Chloroaniline | 10 | - |
| 87-68-3Hexachlorobutadiene | . 10 | U |
| 59-50-74-Chloro-3-methylphenol | 10 | U |
| 91-57-62-Methvlnaphthalene | 10 | ט |
| 77-47-4Hexachlorocyclopentadiene | 10 | บ · |
| SS-06-22,4,6-Trichlorophenol | 10 | ט |
| 95-95-42,4,5-Trichlorophenol | 25 | |
| 91-58-72-Chloronaphthalene | 10 | U |
| SS-74-42-Nitroaniline | . 25 | U |
| 131-11-3Dimethylphthalate | 10 | U |
| 208-96-8Acenaphthylene | 10 | U |
| 606-20-22,6-Dinitrotoluene | 10 | ט |
| 99-09-23-Nitroaniline | 25 | U |
| 83-32-9Acenaphthene | 10 | U |
| • | | |
| | | |

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

| EPA | SAMPLE | NO |
|-----|--------|----|
| | | |

| TENTATIVEL | A IDENTIFIED COMBOUNDS | JM180 |
|-----------------------------|------------------------|-------|
| Lab Name: COMPUCHEM ENV. Co | DRP. Contract: 68D5000 | 09 |

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM180

Matrix: (soil/water) WATER Lab Sample ID: 835205

Sample wt/vol: 1000 (g/mL) mL Lab File ID: GH035205B60

Level: (low/med) LOW Date Received: 12/21/96

% Moisture: ____ decanted: (Y/N)__ Date Extracted:12/23/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 12/25/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

CONCENTRATION UNITS: Number TICs found: 4 (ug/L or ug/Kg) ug/L

GPC Cleanup: (Y/N) N pH: ____

FORM I SV-TIC

2/13

.JM180

| Lab | Name: | COMPUCHEM | ENV. | CORP. |
|-----|-------|-----------|------|-------|
| | | | | |

Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM180

Matrix: (soil/water) WATER

Lab Sample ID: 835205

Sample wt/vol:

1000 (g/mL) mL

Lab File ID: GH035205B60

Level: (low/med) LOW

Date Received: 12/21/96

% Moisture: decanted: (Y/N) ___ Date Extracted:12/23/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 12/25/96

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.

COMPOUND

CONCENTRATION UNITS:

(ug/L or ug/Kg) ug/L

| | | | |
|-------------|------------------------------|-------------|-----------------|
| 51-28-5 | 2,4-Dinitrophenol | 25 | \t _I |
| | 4-Nitrophenol | 25 | |
| | Dibenzofuran | 10 | ı |
| | 2,4-Dinitrotoluene | 10 | I. |
| | Diethylphthalate | 10 | |
| | 4-Chlorophenyl-phenylether | 10 | i |
| 86-73-7 | Fluorene | 10 | |
| | 4-Nitroaniline | 25 | |
| | 4,6-Dinitro-2-methylphenol | 25 | |
| | N-nitrosodiphenylamine (1) | 10 | ł |
| | 4-Bromophenyl-phenylether | 10 | |
| | Hexachlorobenzene | 10 | |
| | Pentachlorophenol | 25 | |
| | Phenanthrene | 10 | |
| | Anthracene | 10 | |
| | Carbazole | 10 | |
| | Di-n-butylphthalate | 10 | |
| | Fluoranthene | 10 | |
| 129-00-0 | | 1 | |
| | Butylbenzylphthalate | 10 | J |
| | Bucylbenzylphchalace | 10 | |
| | | | |
| | Benzo(a)anthracene | 10 | |
| 218-01-9 | | 10 | |
| | bis(2-Ethylhexyl)phthalate | 10 | |
| | Di-n-octylphthalate | 10 | |
| | Benzo(b) fluoranthene | 10 | |
| | Benzo(k)fluoranthene | 10 | |
| | Benzo(a)pyrene | 10 | |
| | Indeno(1,2,3-cd)pyrene | 10 | |
| | Dibenzo(a,h)anthracene | 10 | _ |
| 191-24-2 | Benzo(g,h,i)perylene | 10 | U |
| | | l | |
| - Cannot be | separated from Diphenylamine | | |

EPA SAMPLE NO.

JM180
Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: UM180

Matrix: (soil/water) WATER Lab Sample ID: 835205

Sample wt/vol: 1000 (g/ π L) mL Lab File ID: GH035205B60

Level: (low/med) LOW Date Received: 12/21/96

% Moisture: ____ decanted: (Y/N)__ Date Extracted:12/23/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 12/25/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

zi.jection voitame. z.o (un) principii ractor. z.

GPC Cleanup: (Y/N) N pH:

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/L Q

| | | , |
|----------|------------------------------|--------|
| 108-95-2 | Phenol | . 10 U |
| | bis(2-Chloroethyl)ether | 10 0 |
| | 2-Chlorophenol | 10 0 |
| | 1,3-Dichlorobenzene | 10 U |
| | 1,4-Dichlorobenzene | 10 U |
| | 1,2-Dichlorobenzene | 10 U |
| | 2-Methylphenol | 10 U |
| | 2,2'-oxybis(1-Chloropropane) | 10 U |
| | 4-Methylphenol | 10 0 |
| | N-Nitroso-di-n-propylamine | 10 U |
| | Hexachloroethane | 10 U |
| | Nitrobenzene | 10 U |
| | Isophorone | 10 0 |
| | 2-Nitrophenol | 10 0 |
| | 2,4-Dimethylphenol | 10 U |
| 111-91-1 | bis(2-Chloroethoxy)methane | 10 U |
| | 2,4-Dichlorophenol | 10 U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 10 U |
| 91-20-3 | Naphthalene | 10 U |
| | 4-Chloroaniline | וסע |
| 87-68-3 | Hexachlorobutadiene | 10 U . |
| 59-50-7 | 4-Chloro-3-mathvlphanol | 10 U |
| 91-57-6 | 2-Nethylnaphthalene | 10 0 |
| 77-47-4 | Hexachlorocyclopentadiene | 10 U |
| 88-06-2 | 2,4,6-Trichlorophenol | 10 U |
| 95-95-4 | 2,4,5-Trichlorophenol | 25 Ü |
| 91-58-7 | 2-Chloronaphthalene | 10 U |
| | 2-Nitroaniline | 25 U |
| | Dimethylphthalate | 10 0 |
| | Acenaphthylene | 10 U |
| | 2,6-Dinitrotoluene | 10 U |
| | 3-Nitroaniline | 25 U |
| 83-32-9 | Acenaphthene | 10 U |
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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM180

Matrix: (soil/water) WATER

Lab Sample ID: 835224

Sample wt/vol: 5.0 (g/mL) mL

Lab File ID: CR035224C57

Level: (low/med) LOW

Date Received: 12/21/96

% Moisture: not dec. _____ Date Analyzed: 12/26/96

GC Column: DB624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

| | • | CONCENTRATION UNITS: |
|--------------------|---|----------------------|
| Number TICs found: | 0 | (ug/L or ug/Kg) ug/L |

| | · | T | 1 | i |
|-----------------------------------------|-----------------------------------------|-------------|------------|---------------|
| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
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FORM I VOA-TIC

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EPA SAMPLE NO.

| JM225 | |
|-------|--|
|-------|--|

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.:

SDG No.: JM180

Matrix: (soil/water) WATER

Lab Sample ID: 835224

Sample wt/vol: 5.0 (g/mL) mL

Lab File ID: CR035224C57

Level: (low/med) LOW

Date Received: 12/21/96

% Moisture: not dec.

Date Analyzed: 12/26/96

GC Column:D3624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: ____(uL)

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/L Q

| 74-87-3 | | | | | Γ |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|----------------------------------------------------|--------------------------------------------------|----|-----|
| 75-01-4 | 74-87-3 | -Chloromethane | | 10 | U |
| 75-01-4 | 74-83-9 | -Bromomethane | | 10 | U |
| 75-00-3Chloroethane 10 U 75-09-2Methylene Chloride 2 J 67-64-1Acetone 10 U 75-15-0 | • | | | | F |
| 75-09-2 | | | | | 1 |
| 67-6:-1Acetone 10 UJ 75-15-0Carbon Disulfide 10 U 75-35-41,1-Dichloroethene 10 U 75-34-31,1-Dichloroethane 10 U 540-59-01,2-Dichloroethane 10 U 67-66-3 | | | Ì | | 1 |
| 75-15-0 | | | | | |
| 75-35-41,1-Dichloroethene 10 U 75-34-31,1-Dichloroethane 10 U 540-59-01,2-Dichloroethene 10 U 67-66-3Chloroform 27 107-05-21,2-Dichloroethane 10 U 78-93-32-Butanone 10 U 71-55-61,1,1-Trichloroethane 10 U 75-27-4Bromodichloromethane 1 U 78-87-51,2-Dichloropropane 10 U 10061-01-5cis-1,3-Dichloropropene 10 U 79-01-6Trichloroethene 10 U 124-48-1Dibromochloromethane 10 U 79-00-51,1,2-Trichloroethane 10 U 71-43-2Benzene 10 U 10061-02-6trans-1,3-Dichloropropene 10 U 75-25-2Bromoform 10 U 108-10-14-Methyl-2-Pentanone 10 U | | | | | |
| 75-34-31,1-Dichloroethane 10 U 540-59-01,2-Dichloroethane 10 U 67-66-3 | | | } | | t . |
| 540-59-01, 2-Dichloroethene (total) 10 U 67-66-3Chloroform 27 107-05-21, 2-Dichloroethane 10 U 78-93-32-Butanone 10 U 71-55-61, 1, 1-Trichloroethane 10 U 56-23-5Carbon Tetrachloride 10 U 75-27-4Bromodichloromethane 1 U 78-87-51, 2-Dichloropropane 10 U 10061-01-5cis-1, 3-Dichloropropene 10 U 79-01-6Trichloroethane 10 U 124-48-1Dibromochloromethane 10 U 79-00-51, 1, 2-Trichloroethane 10 U 71-43-2Senzene 10 U 10061-02-6trans-1, 3-Dichloropropene 10 U 75-25-2 | | · | | | 3 |
| 67-66-3 | - | · | | | 1 - |
| 107-05-21, 2-Dichloroethane 10 U 78-93-32-Butanone 10 U J 71-55-61, 1, 1-Trichloroethane 10 U 56-23-5Carbon Tetrachloride 10 U 75-27-4Bromodichloromethane 1 J 78-87-51, 2-Dichloropropane 10 U 10061-01-5cis-1, 3-Dichloropropene 10 U 79-01-6Trichloroethane 10 U 124-48-1Dibromochloromethane 10 U 79-00-51, 1, 2-Trichloroethane 10 U 71-43-2Benzene 10 U 10051-02-6trans-1, 3-Dichloropropene 10 U 75-25-2Bromoform 10 U 108-10-14-Methyl-2-Pentanone 10 U 591-78-62-Hexanone 10 U | | | | | ľ |
| 78-93-32-Butanone 10 U J 71-55-61,1,1-Trichloroethane 10 U 56-23-5Carbon Tetrachloride 10 U 75-27-4Bromodichloromethane 1 J 78-87-51,2-Dichloropropane 10 U 10061-01-5cis-1,3-Dichloropropene 10 U 79-01-6Trichloroethane 10 U 124-48-1Dibromochloromethane 10 U 79-00-51,1,2-Trichloroethane 10 U 71-43-2Benzene 10 U 10051-02-6trans-1,3-Dichloropropene 10 U 75-25-2Bromoform 10 U 108-10-14-Methyl-2-Pentanone 10 U J | • | | | | l |
| 71-55-61,1,1-Trichloroethane 10 U 56-23-5Carbon Tetrachloride 10 U 75-27-4Bromodichloromethane 1 J 78-87-51,2-Dichloropropane 10 U 10061-01-5cis-1,3-Dichloropropene 10 U 79-01-6Trichloroethane 10 U 124-48-1Dibromochloromethane 10 U 79-00-51,1,2-Trichloroethane 10 U 71-43-2Banzene 10 U 10051-02-5trans-1,3-Dichloropropene 10 U 75-25-2Bromoform 10 U 108-10-14-Methyl-2-Pentanone 10 U 591-78-62-Hexanone 10 U | | | | | |
| 56-23-5 | · | | | | |
| 75-27-4Bromodichloromethane 78-87-51,2-Dichloropropane 10061-01-5cis-1,3-Dichloropropene 10 U 124-48-1Dibromochloromethane 10 U 179-00-51,1,2-Trichloroethane 10 U 10061-02-6trans-1,3-Dichloropropene 10 U 108-10-14-Methyl-2-Pentanone 10 U 591-78-62-Hexanone 10 U 10 U 10 U 10 U 10 U 10 U 10 U 10 U | | · · · | | | 1 |
| 78-87-51, 2-Dichloropropane 10 U 10061-01-5cis-1, 3-Dichloropropene 10 U 79-01-6Trichloroethene 10 U 124-48-1Dibromochloromethane 10 U 79-00-51, 1, 2-Trichloroethane 10 U 71-43-2Benzene 10 U 10061-02-5trans-1, 3-Dichloropropene 10 U 75-25-2Bromoform 10 U 108-10-14-Methyl-2-Pentanone 10 U 591-78-52-Hexanone 10 U | | | | | |
| 10061-01-5cis-1,3-Dichloropropene 10 U 79-01-6Trichloroethene 10 U 124-48-1Dibromochloromethane 10 U 79-00-51,1,2-Trichloroethane 10 U 71-43-2Benzene 10 U 10061-02-6trans-1,3-Dichloropropene 10 U 75-25-2Bromoform 10 U 108-10-14-Methyl-2-Pentanone 10 U 591-78-52-Hexanone 10 U | | | | _ | - |
| 79-01-6Trichloroethene 10 U 124-48-1Dibromochloromethane 10 U 79-00-51,1,2-Trichloroethane 10 U 71-43-2Benzene 10 U 10051-02-6trans-1,3-Dichloropropene 10 U 75-25-2Bromoform 10 U 108-10-14-Methyl-2-Pentanone 10 U 591-78-62-Hexanone 10 U | | | | | 1 |
| 124-48-1Dibromochloromethane 10 U 79-00-51,1,2-Trichloroethane 10 U 71-43-2Benzene 10 U 10051-02-5trans-1,3-Dichloropropene 10 U 75-25-2Bromoform 10 U 108-10-14-Methyl-2-Pentanone 10 U 591-78-52-Hexanone 10 U | | | | | 1 |
| 79-00-51,1,2-Trichloroethane 10 U 71-43-2Benzene 10 U 10051-02-5trans-1,3-Dichloropropene 10 U 75-25-2Bromoform 10 U 108-10-14-Methyl-2-Pentanone 10 UJ 591-78-52-Hexanone 10 UJ | | | , | | |
| 71-43-2Benzene 10 U 10061-02-6trans-1,3-Dichloropropene 10 U 75-25-2Bromoform 10 U 108-10-14-Methyl-2-Pentanone 10 U 591-78-62-Hexanone 10 U | | - · · · · · · · · · · · · · · · · · · · | | | _ |
| 10061-02-6trans-1,3-Dichloropropene 10 U 75-25-2Bromoform 10 U 108-10-14-Methyl-2-Pentanone 10 U 591-78-62-Hexanone 10 U | | | | | |
| 75-25-2Bromoform 10 U 108-10-14-Methyl-2-Pentanone 10 UJ 591-78-62-Hexanone 10 UJ | | | | | _ |
| 108-10-14-Methyl-2-Pentanone 10 UJ 591-78-62-Hexanone 10 UJ | | · · · · · · · · · · · · · · · · · · · | | | |
| 591-78-62-Hexanone 10 UJ | | | | | l i |
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| | | | | | ~ |
| 79-34-51,1,2,2-Tetrachloroethane \ 10 U | | | ` | | |
| 108-88-3Toluene | | | | | |
| 108-90-7Chlorobenzene 10 U | | | • | | l |
| 100-41-4Ethylbenzene 10 U | | | | | ~ |
| 100-42-5Scyrene 10 U | | | | | - |
| 1330-20-7Xvlene (Total) 10 U | | • | | | l |
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TENTATIVELY IDENTIFIED COMPOUNDS

JM190

EPA SAMPLE NO.

| Lab Name: COMPUCHEM E | ENV. (| CORP . |
|-----------------------|--------|--------|
|-----------------------|--------|--------|

Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.:

SDG No.: JM180

Matrix: (soil/water) WATER

Lab Sample ID: 835223

Sample wt/vol: 5.0 (g/mL) mL Lab File ID:

CR035223C57

Level: (low/med) LOW

Date Received: 12/21/96

% Moisture: not dec. _____ . .

Number TICs found: 0

Date Analyzed: 12/26/96

GC Column: DB624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: ____(uL)

Soil Aliquot Volume: ____(uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|---------------------------------------|-----------------------------------------|-----------------|-----------------------------------------|-------------|
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EPA SAMPLE NO.

JM190

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.:

SDG No.: JM180

Matrix: (soil/water) WATER

Lab Sample ID: 835223

Sample wt/vol: 5.0 (g/mL) mL

Lab File ID: CR035223C57

Level: (low/med) LOW

Date Received: 12/21/96

% Moisture: not dec.

Date Analyzed: 12/26/96

GC Column: DB624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: ____(uL)

Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO. COMPOUND

(ug/L or ug/Kg) ug/L $\,$ Q

| 74 07 7 | Chloromethane | 10 | |
|----------|-----------------------------|----------|----------------|
| | Bromomethane | 10 | _ |
| | Vinyl Chloride | 10 | |
| | | | 1 |
| | Chloroethane | | U |
| | Methylene Chloride | 10 | 1 |
| 67-64-1 | | | רת |
| | Carbon Disulfide | 10 | |
| | l,1-Dichloroethene | 10 | 1 |
| | 1,1-Dichloroethane | 10 | |
| | 1,2-Dichloroethene (total)_ | 10 | Ū |
| | Chloroform | 10 | 1 |
| | 1,2-Dichloroethane | 10 | U |
| | 2-Butanone | 10 | עט |
| 71-55-5 | 1,1,1-Trichloroethane | 10 | U |
| | Carbon Tetrachloride | 10 | U |
| 75-27-4 | Bromodichloromethane | 10 | U |
| | 1,2-Dichloropropane | 10 | 1 |
| | cis-1,3-Dichloropropene | 10 | 1 |
| | Trichloroethene | 10 | |
| | Dibromochloromethane | 10 | 1 |
| | 1,1,2-Trichloroethane | 10 | |
| 71-43-2 | | 10 | - |
| | trans-1,3-Dichloropropene | 10 | |
| | Bromoform | 10 | 1 |
| = | 4-Methyl-2-Pentanone | | رت |
| | 2-Hexanone | \ | נט |
| | Tetrachloroethene | 10 | _ |
| | 1,1,2,2-Tetrachloroethane | 10 | |
| 108-88-3 | | 10 | |
| | Chlorobenzene | 10 | _ |
| | Ethylbenzene | 10 | - |
| | - | | t |
| 100-42-5 | | 10 | h |
| | Xylene (Total) | 10 | [^U |
| | | l | ſ |

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VOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

| Lab Name: COMPUCHEM ENV. CORP. Co | ontract: 68D50009 |
|-----------------------------------|---------------------------|
| Lab Code: COMPU Case No.: 25253 | SAS No.: SDG No.: JM180 |
| Matrix: (soil/water) WATER | Lab Sample ID: 835222 |
| Sample wt/vol: 5.0 (g/mL) mL | Lab File ID: CR035222C57 |
| Level: (low/med) LOW | Date Received: 12/21/96 |
| % Moisture: not dec. | Date Analyzed: 12/26/96 |
| GC Column:DB624 ID: 0.53 (mm) | Dilution Factor: 1.0 |
| Soil Extract Volume:(uL) | Soil Aliquot Volume: (uL) |

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L

Number TICs found: 0

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|-------------------|---------------|----|------------|---|
| 1 | | | | |
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| 23. 24. 25. | | | | |
| 25. 25. 27. | | | | |
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| 30. | | | | |

EPA SAMPLE NO.

JM189

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM180

Matrix: (soil/water) WATER

Lab Sample ID: 835222

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: CR035222C57

Lavel: (low/med) LOW

Date Received: 12/21/96

% Moisture: not dec.

Date Analyzed: 12/26/96

GC Column:D3624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Aliquot Volume: (uL)

Soil Extract Volume: _____(uL)

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/L Q

| • | | | |
|-----------|----------------------------|------------|-----|
| 74-87-3 | Chloromethane | 10 | TI |
| | Bromomethane | 10 | 1 - |
| | Vinyl Chloride | 10 | |
| | Chloroethane | 10 | |
| | Methylene Chloride | 10 | į. |
| 67-64-1 | | . I | נט |
| | Carbon Disulfide | 10 | 1 |
| | 1,1-Dichloroethene | 10 | 1 |
| | 1,1-Dichloroethane | 10 | ì |
| | 1,2-Dichloroethene (total) | 10 | |
| | Chloroform | 10 | - |
| | 1,2-Dichloroethane | 10 | |
| | 2-Butanone | 1 | נט |
| | 1,1,1-Trichloroethane | 10 | |
| | Carbon Tetrachloride | 10 | |
| | Sromodichloromethane | 10 | |
| | 1,2-Dichloropropane | 10 | _ |
| | cis-1,3-Dichloropropene | 10 | |
| | Trichloroethene | 10 | |
| | Dibromochloromethane | 10 | _ |
| | 1,1,2-Trichloroethane | 10 | |
| | | | |
| 71-43-2 | | 10 | |
| | trans-1,3-Dichloropropene | 10 | |
| | Bromoform | 10 | |
| | 4-Methyl-2-Pentanone | 1 | רם |
| | 2-Hexanone | 1 ' | רת |
| | Tetrachloroethene | 10 | _ |
| | 1,1,2,2-Tetrachloroethane | 10 | _ |
| 108-88-3 | | 10 | _ |
| | Chlorobenzene | 10 | _ |
| | Echylbenzene | 10 | _ |
| 100-42-5 | | 10 | Ū |
| 1330-20-7 | Xylene (Total) | 10 | ĹŪ |
| | | | i |

FORM I VOA

VOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

| EPA | SAMPLE | NO. |
|-----|--------|-----|
| | | |

| Lab N | ame : | COMPUCHEM | ENV. | CORP. |
|-------|-------|-----------|------|-------|
|-------|-------|-----------|------|-------|

Contract: 68D50009

| JM188 | |
|-------|--|
| | |

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM180

Matrix: (soil/water) WATER

Lab Sample ID: 835221

Sample wt/vol: 5.0 (g/ml) ml

Lab File ID:

CN035221A57

Level: (low/med) LOW

Date Received: 12/21/96

% Moisture: not dec.

Date Analyzed: 12/24/96

GC Column: DB624

ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Number TICs found: 0

Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|-----------------------------------------|---------------|-----------------|---------------|-------------|
| ======================================= | | ====== | ========= | ==== |
| ÷ | | | | Ì |
| 2 | | ļ | | |
| 3 | | | |] |
| 5. | | |] |] |
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| 13. | | | | |
| 14 | | | | |
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| <u> </u> | | | | |
| LS | | | | |
| | | | | |
| 20. | | | | |
| | | | | |
| 22. | | | | |
| S. — — | | · | | |
| 5. | | | | |
| 26. | | | | |
| 7. | | | | |
| 23. | | | | |
| 29. | | | | |
| 30. | | | | |

EPA SAMPLE NO.

JM188

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM180

Natrix: (soil/water) WATER

Lab Sample ID: 835221

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: CN035221A57

Level: (low/med) LOW

Date Received: 12/21/96

% Moisture: not dec.

Date Analyzed: 12/24/96

GC Column:DB624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: ____(uL)

CONCENTRATION UNITS:

| CAS NO. | COMPOUND | • | (ug/L or ug/Kg) ug/L | Q | | |
|---------|----------|---|----------------------|---|--|--|

15 VOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

JM187

EPA SAMPLE NO.

| Lab Name: | COMPUCHEM | ENV. | CORP. | (| Contract: | 681 | 050009 | 1 | | _ |
|-------------|------------|------|-------------------|----|-----------|------|---------|------|-------------|---|
| Lab Code: | COMPU | Case | No.: 2525 | 53 | SAS No.: | | S | SDG | No.: JM180 | |
| Matrix: (so | oil/water) | WATE | CR CR | | | Lab | Sample | ID: | 835220 | |
| Sample wt/v | vol: | 5. | 0 (g/m <u>i</u>) | mL | | Lab | File II |) : | CR035220A57 | |
| Level: (] | low/med) | LOW | | | | Date | Receiv | red: | 12/21/96 | |

% Moisture: not dec. ____ Date Analyzed: 12/24/96

GC Column: DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: ____(uL) Soil Aliquot Volume: ____(uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L

RT EST. CONC. CAS NUMBER COMPOUND NAME 10.___ 15.___ 15.____ 20._ 23. 24._ 25.___ 38._ 29._

Number TICs found: 0

EPA SAMPLE NO.

| J) | 1137 | |
|----|------|--|
| | | |

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

SDG No.; JM180

Matrix: (soil/water) WATER

Lab Sample ID: 835220

Sample wc/vol: 5.0 (g/mL) mL

Lab Code: COMPU Case No.: 25253 SAS No.:

Lab File ID: CR035220A57

Level: (low/med) LOW

Date Received: 12/21/96

% Moisture: not dec. . . .

Date Analyzed: 12/24/96

GC Column:DB624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: ____(uL)

Soil Aliquot Volume: __ (uL)

CONCENTRATION UNITS:

CAS NO. COMPOUND

(ug/L or ug/Kg) ug/L Q

| | | | 1 |
|------------|----------------------------|-------------|-----|
| 74-87-3 | Chloromethane | 10 | U |
| 74-83-9 | Bromomethane | 10 | ט |
| 75-01-4 | Vinvl Chloride | . 10 | U |
| 75-00-3 | Chloroethane | 10 | U |
| 75-09-2 | Methylene Chloride | 10 | Ų |
| 67-64-1 | Acetone | . 10 | נט |
| 75-15-0 | Carbon Disulfide | 10 | U |
| 75-35-4 | 1,1-Dichloroethene | 10 | U |
| 75-34-3 | 1,1-Dichloroethane | 10 | U . |
| | 1,2-Dichloroethene (total) | 10 | U |
| 67-66-3 | Chloroform | 10 | U |
| 107-05-2 | 1,2-Dichloroethane | 10 | U |
| 78-93-3 | 2-Butanone | .10 | UJ |
| 71-55-6 | 1,1,1-Trichloroethane | 10 | U |
| 56-23-5 | Carbon Tetrachloride | 10 | U |
| 75-27-4 | Bromodichloromethane | 1,0 | U |
| 78-87-5 | 1,2-Dichloropropane | 10 | Ū |
| 10061-01-5 | cis-1,3-Dichloropropene | 10 | U |
| | Trichloroethene | 10 | U |
| 124-48-1 | Dibromochloromethane | 10 | U |
| 79-00-5 | 1,1,2-Trichloroethane | 10 | U |
| 71-43-2 | Benzene | 10 | U |
| 10061-02-6 | trans-1,3-Dichloropropene | 10 | U |
| 75-25-2 | | 10 | U |
| 108-10-1 | 4-Nethyl-2-Pentanone | . 10 | UΔ |
| 591-78-6 | | 10 | UI |
| | Tetrachloroethene | | บ |
| | 1,1,2,2-Tetrachloroethane | 10 | U |
| 108-88-3 | | 10 | |
| | Chlorobenzene | 10 | |
| | Ethvlbenzene | 10 | |
| 100-42-5 | | 10 | _ |
| | Xvlene (Total) | 10 | Ū |
| 2000 | | | _ |
| | | | |



EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

JM186

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.:

SDG No.: JM180

Matrix: (soil/water) WATER

Lab Sample ID: 835219

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: CN035219A57

Level: (low/med) LOW

Date Received: 12/21/96

% Moisture: not dec. _____

Date Analyzed: 12/24/96

GC Column: DB624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Aliquot Volume: ____(uL)

Soil Extract Volume: (uL)

CONCENTRATION UNITS:

Number TICs found: 0 (ug/L or ug/Kg) ug/L

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|------------|---------------|---------------|-----------------------------------------|---|
| 1 | | ======= | ======================================= | |
| 2 | | | | |
| 4 | | | | |
| 5. | | | | |
| 7. | | | | |
| S | | | | |
| 10. | | | | |
| 12. | | | | |
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| 19. | | I | | |
| 20. | | | | |
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| 23. | | | | |
| 25. | | · | | |
| 26. | | | | |
| 28. | | | | |
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EPA SAMPLE NO.

JM186

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM180

Matrix: (soil/water) WATER

Lab Sample ID: 835219

Sample wt/vol: 5.0 (g/mL) mL

Lab File ID: CN035219A57

Level: (low/med) LOW

Date Received: 12/21/96

% Moisture: not dec.

Date Analyzed: 12/24/96

GC Column: DB624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: ____(uL)

Soil Aliquot Volume: ____ (uL)

CONCENTRATION UNITS:

CAS NO. COMPOUND

(ug/L or ug/Kg) ug/L

| 74-87-3 | Chloromethane | | 10 U |
|------------|----------------------------|-----|----------|
| | Bromomethane | 1 | 10 0 |
| | Vinvl Chloride | | 10 0 |
| | Chloroethane | | 10 0 |
| | Methylene Chloride | | 10 0 |
| 67-64-1 | | | 10 7 |
| | Carbon Disulfide | · · | |
| | | | |
| | 1,1-Dichloroethene | ļ | |
| | 1,1-Dichloroethane | | 10 0 |
| | 1,2-Dichloroethene (total) | | 10 U |
| | Culoroform | | 10 U |
| | 1,2-Dichloroethane | | 10 U |
| | 2-Butanone | | רַט 10 |
| | 1,1,1-Trichloroethane | | 10 U |
| | Carbon Tetrachloride | - | 10 U |
| | Bromodichloromethane | | 10 U |
| 78-87-5 | 1,2-Dichloropropane | | 10 U |
| 10061-01-5 | cis-1,3-Dichloropropens | - | 10 U |
| 79-01-5 | Trichloroethene | - | 10 U |
| 124-48-1 | Dibromochloromethane | | 10 U |
| | 1,1,2-Trichloroethane | | 10 U |
| 71-43-2 | | | 10 U |
| | trans-1,3-Dichloropropene | | 10 U |
| 75-25-2 | | | 10 U |
| | 4-Nethvl-2-Pentanone | | נט 10 |
| | 2-Hexanone | | 10 0 |
| | Tetrachloroethene | | 10 0 |
| | 1,1,2,2-Tetrachloroethane | | 10 0 |
| 108-88-3 | | | 10 0 |
| | Chlorobenzene | | 1 |
| | Ethylbenzene | | 1 - |
| | | | |
| 100-42-5 | | | ~ 0 0 |
| 1330-20-7 | Xylene (Total) | | 10 U |
| | | l | I |

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VOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

| EPA | SAMPLE | NO |
|-----|--------|----|
|-----|--------|----|

| Lab Name: COMPUCHEM ENV. CORP. | Contract: 68D50009 |
|---------------------------------|--------------------------|
| Lab Code: COMPU Case No.: 25253 | SAS No.: SDG No.: JM180 |
| Matrix: (soil/water) WATER | Lab Sample ID: 835218 |
| Sample wt/vol: 5.0 (g/mL) mL | Lab File ID: CR035218A57 |
| Level: (low/med) LOW | Date Received: 12/21/96 |

% Moisture: not dec. _____ Date Analyzed: 12/24/96 .

GC Column:DB624 · ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L

CAS NUMBER RT COMPOUND NAME EST. CONC. 0 S . __ 10. 13._ 15.___ 16.___ 17.___ 18.____ 19. 20. -21.__ 22._ 25.__ 26._ 27.__ 28. 29.

> 61 OLM03.0 cooker and environment

Number TICs found: 0

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

JM185

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

COMPOUND

CAS NO.

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM180

Matrix: (soil/water) WATER Lab Sample ID: 835218

Sample wt/vol: 5.0 (g/ π L) π L Lab File ID: CR035218A57

Level: (low/med) LOW Date Received: 12/21/96

% Moisture: not dec. Date Analyzed: 12/24/96

GC Column: DB524 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) ug/L

74-87-3------Chloromethane 10 U 74-83-9-----Bromomethane 10 U 10 U 75-01-4-----Vinvl Chloride 10 U 75-00-3------Chloroethane 75-09-2------Nethylene Chloride 1|J 67-64-1------Acetone 10 | 01 10 U 75-15-0------Carbon Disulfide 75-35-4-----1,1-Dichloroethene_ 10 U 10 U 75-34-3-----1,1-Dichloroethane 540-59-0-----1,2-Dichloroethene (total) 10 U 67-56-3------Chloroform 10 U 107-06-2-----1, 2-Dichloroethane 10 U 78-93-3----2-Butanone 10 | 01 71-55-6-----1,1,1-Trichloroethane 10 U 10 0 55-23-5-----Carbon Tetrachloride 10 U 75-27-4-----Bromodichloromethane 78-87-5-----1, 2-Dichloropropane 10 U 10 U 10051-01-5----cis-1,3-Dichloropropene 10/0 79-01-6-----Trichloroethene 124-48-1-----Dibromochloromethane 10 U 79-00-5-----1,1,2-Trichloroethane 10 U 10 U 71-43-2----Benzene 10051-02-6----trans-1,3-Dichloropropene 10 U 75-25-2-----Bromoform 10 U 10S-10-1-----4-Methyl-2-Pentanone 10 UJ 591-78-6----2-Hexanone רמוסו 127-18-4-----Tetrachloroethene 10 U 10 U 79-34-5----1,1,2,2-Tetrachloroethane 108-88-3-----Toluene 10 U 108-90-7-----Chlorobenzene 10 U 100-41-4-----Ethvlbenzene 10 U 100-42-5-----Styrene 10 0 1330-20-7-----Xylene (Total) 10 U

77 77

VOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

JM184

EPA SAMPLE NO.

| Lab Na | ame: | COMPUCHEM | ENV. | CORP. |
|--------|------|-----------|------|-------|
|--------|------|-----------|------|-------|

Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.:

SDG No.: JM180

Matrix: (soil/water) WATER

Lab Sample ID: 835217

Sample wt/vol: 5.0 (g/mL) mL

Lab File ID:

C3R35217C57

Level: (low/med) LOW

Number TICs found: 0

Date Received: 12/21/96

% Moisture: not dec.

Date Analyzed: 12/26/96

GC Column: DB624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____(uL)

Soil Aliquot Volume: ____(uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|--------------|-----------------------------------------|---------|------------|-------------|
| 1 | ======================================= | ======= | ========= | ==== |
| 2. | | _ | | |
| 3. | | | | |
| 4 | | | | |
| 5 | | _ | | |
| 6 | | - | | |
| 7 | | - | | |
| 8 | | - | | |
| 10. | | - | | |
| 11. | | | | |
| 12. <u> </u> | | | | |
| 13 | | | | |
| <u> </u> | | _ | | |
| 15 | | - | | |
| 16 | | - |] | |
| is. | · · · · · · · · · · · · · · · · · · · | - | | |
| 19. | <u> </u> | - | | |
| 20. | | | | |
| 21. | | | | |
| 22. | · · · · · · · · · · · · · · · · · · · | | | |
| 23. | | - | | |
| 24 | | - | | |
| 25. 26. | | - | | |
| 77 | | - | | |
| 28. | | - | | |
| 29. | | | | |
| 30. | | | | |
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1.A VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

| JM184 | |
|-------|--|
| | |

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.:

SDG No.: JM180

Matrix: (soil/water) WATER

Lab Sample ID: 835217

Sample wt/vol: 5.0 (g/mL) mL

Lab File ID: C3R35217C57

Level: (low/med) LOW

Date Received: 12/21/96

% Moisture: not dec.

Date Analyzed: 12/26/96

GC Column: DB624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Aliquot Volume: ____(uL)

Soil Extract Volume: _____(uL)

CAS NO. COMPOUND

CONCENTRATION UNITS:

(ug/L or ug/Kg) ug/L Q

| 74 07 3 | Chloromethane | | 10 U |
|------------|---------------------------------------|-----|-------------|
| | Chioromethane | - | |
| | Vinvl Chloride | | 10 U |
| | Chloroethane | - | 10 U |
| | | - | 10 U 1 J |
| | Methylene Chloride | - | - 1 - |
| 57-54-1 | | - | 17 |
| | Carbon Disulfide | - | 10 U |
| | 1,1-Dichloroethene | - | 10 U |
| | 1,1-Dichloroethane | | 10 U |
| | 1,2-Dichloroethene (total) | - | 10 U |
| | Chloroform | | 10 U |
| | 1,2-Dichloroethane | _ | 10 U |
| | 2-Butanone | | 10 D 7 |
| | 1,1,1-Trichloroethane | . ~ | 10 U |
| | Carbon Tetrachloride | | 10 U |
| 75-27-4 | Bromodichloromethane | | 10 U |
| 78-87-5 | 1,2-Dichloropropane | | 10 U |
| 10061-01-5 | cis-1,3-Dichloropropene | | 10 U |
| 79-01-6 | Trichloroethene | | 10 U |
| 124-48-1 | Dibromochloromethane | | 10 U |
| 79-00-5 | 1,1,2-Trichloroethane | • | 10 0 |
| 71-43-2 | Benzene | - | 10 U |
| | trans-1,3-Dichloropropene | | 10 U |
| 75-25-2 | Bromoform | - | 10 U |
| | 4-Methvl-2-Pentanone | • | 10 0 3 |
| | 2-Hexanone | • | רמ 10 |
| | Tetrachloroethene | • | 10 U |
| | 1,1,2,2-Tetrachloroethane | • | 10 U |
| 108-88-3 | | • | 10 U |
| | Chlorobenzene | • | 10 U |
| | Ethvlbenzene | - | 10 U |
| 100-42-5 | | - | 10 U |
| | Xvlene (Total) | • | 10 U |
| 7220-70-1 | XATEME (LOCAL) | - | 10 0 |
| | · · · · · · · · · · · · · · · · · · · | . | _ |

VOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

| EPA . | SAMPLE | NO |
|-------|--------|----|
|-------|--------|----|

| | | JM183 |
|-----------|----------|-------|
| Contract: | 68D50009 | |

Lab Name: COMPUCHEM ENV. CORP.

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM180

Matrix: (soil/water) WATER

Lab Sample ID: 835216

Sample wt/vol: 5.0 (g/ml) mL

Lab File ID:

CN035216A57

Level: (low/med) LOW

Date Received: 12/21/96

% Moisture: not dec.

Date Analyzed: 12/24/96

GC Column: DB524

ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

Number TICs found: 0 (ug/L or ug/Kg) ug/L

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|------------|---------------|-------------|------------|-------------|
| 1. | | | | |
| 2 | | | | |
| 3 | | | | |
| 4· | | | | |
| 6. | | | | |
| 7. | | | | |
| S. | | | | |
| 9. | | | | |
| 10. | | | | |
| 11. | | | | |
| 13. | <u></u> | | | |
| 14. | | | | |
| 15. | | | · | |
| 16. | | | | |
| 17. | | | | |
| 18. | | | | |
| 19. | | | | |
| 21. | | | | |
| 32. | | | | |
| 23. | | | | |
| 24 | | | | |
| 25. | | | | |
| 26. 27. | | | | |
| 28. | | | | |
| 29. | | | | |
| 30. | · | | | |
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

JM183

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM180

Matrix: (soil/water) WATER Lab Sample ID: 835216

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: CN035216A57

Level: (low/med) LOW Date Received: 12/21/96

% Moisture: not dec. ____ Date Analyzed: 12/24/96

GC Column: DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/L Q

| 74-87-3 | Chloromethane | 10 | TT |
|----------|----------------------------|-----|-----|
| | Bromomethane | 10 | - |
| | Vinyl Chloride | 10 | |
| | Chloroethane | 10 | 1 |
| | Methylene Chloride | | J |
| 67-64-1 | | . 1 | [ע |
| | Carbon Disulfide | 10 | , – |
| | 1,1-Dichloroethene | 10 | |
| | 1,1-Dichloroethane | 10 | 1 |
| | 1,2-Dichloroethene (total) | 10 | 1 |
| | Chloroform | 10 | t . |
| | 1, 2-Dichloroethane | 10 | 1 |
| | 2-Butanone | . [| נט |
| | 1,1,1-Trichloroethane | 10 | 4 |
| | Carbon Tetrachloride | 10 | 1 |
| | Bromodichloromethane | 10 | 1 |
| | 1,2-Dichloropropane | 10 | |
| | cis-1,3-Dichloropropene | 10 | |
| 79-01-6 | Trichloroethene | | J / |
| | Dibromochloromethane | 10 | |
| | 1,1,2-Trichloroethane | 10 | 1 |
| 71-43-2 | | 10 | ì |
| | trans-1,3-Dichloropropene | 10 | |
| | Bromoform | 10 | [- |
| | 4-Methyl-2-Pentanone | | רת |
| | 2-Hexanone | 1 ' | ŪĴ |
| | Tetrachloroethene | 10 | 1 - |
| | 1,1,2,2-Tetrachloroethane | 10 | Ū |
| 108-88-3 | | 10 | |
| | Chlorobenzene | 10 | ! - |
| | Ethylbenzene | 10 | lυ |
| 100-42-5 | | 10 | l ' |
| | Xvlene (Total) | 10 | |



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VOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

| EPA SAMPLE N |
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|--------------|

| Lab Name: COMPUCHEM ENV. | CORP. | Contract: 68D50009 | |
|--------------------------|--------------|--------------------|----------------|
| Lab Code: COMPU Case | e No.: 25253 | SAS No.: | SDG No.: JM180 |
| Matrix: (soil/water) WAT | ER | Lab Sample | ID: 835214 |
| Sample wt/vol: 5 | .0 (g/mL) mL | Lab File I | D: CN035214A57 |
| Level: (low/med) LOW | , | Date Recei | ved: 12/21/96 |
| % Moisture: not dec. | <u> </u> | Date Analy | zed: 12/24/96 |
| GC Column:DB624 ID: | 0.53 (mm) · | Dilution F | actor: 1.0 |
| Soil Extract Volume: | (uL) | Soil Alique | ot Volume: (u) |

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | 0/ |
|------------|---------------|-------|------------|--------------------------|
| 1. | NNKNOMN | 20.16 | 5 | ニヺ゠ J <i>ル</i> |
| 3. | | | | |
| 4. | | _ | | |
| 6 | | | | |
| 7. 3. | | | | |
| 9. 10. | | | | |
| 11. | | - | | |
| 12. | | - | | |
| 14. | | | | |
| 16. | | | | |
| 17. 18. | | - | | |
| 19. 20. | | | | |
| 21. | | | | |
| 22. 23. | | - | | |
| 24. 25. | | | | |
| 26. | | | | |
| 27. 28. | | | - | |
| 29. 30. | | | | |
| | | | | |

Number TICs found: 1 .

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

JM181

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM180

Matrin: (soil/water) WATER Lab Sample ID: 835214

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: CN035214A57

Level: (low/med) LOW Date Received: 12/21/96

% Moisture: not dec. Date Analyzed: 12/24/96

GC Column:DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Aliquot Volume: (uL) Soil Extract Volume: (uL)

CONCENTRATION UNITS:

| CAS NO. | COMPOUND | (ug/L or | ug/Kg) ug/L | | Q |
|------------|-------------------|-----------|----------------|----|-----|
| 74-87-3 | Chloromethane | | | 10 | U |
| 74-83-9 | Bromomethane | | | 10 | U |
| 75-01-4 | Vinvl Chloride | | - | 10 | U |
| | Chloroethane | | _ | 10 | U |
| 75-09-2 | Nethylene Chloric | le | | 10 | U |
| 67-64-1 | Acetone | | | 21 | J |
| 75-15-0 | Carbon Disulfide | | _ | 10 | Ū |
| 75-35-4 | 1,1-Dichloroether | ie | | 10 | U |
| 75-34-3 | 1,1-Dichloroethar | ie | | 10 | U |
| 540-59-0 | 1,2-Dichloroether | e (total) | | 10 | U |
| 67-66-3 | Chloroform | _ | | 10 | U |
| 107-05-2 | 1,2-Dichloroethar | ie | <u> </u> | 10 | U |
| 78-93-3 | 2-Sutanone | | | 10 | เกา |
| 71-55-6 | 1,1,1-Trichloroet | hane | _ | 10 | ן ט |
| | Carbon Tetrachlor | | | 10 | U |
| 75-27-4 | Bromodichlorometh | ane | | 10 | ן ט |
| 78-87-5 | 1,2-Dichloropropa | ne | _ | 10 | U |
| 10061-01-5 | cis-1,3-Dichlorop | ropene | | 10 | ט |
| | Trichloroethene | : | _ | 10 | ן ט |
| 124-48-1 | Dibromochlorometh | ane | | 10 | ן ט |
| 79-00-5 | 1,1,2-Trichloroet | hane | | 10 | ט ' |
| 71-43-2 | | | - | 10 | U |
| | trans-1,3-Dichlor | oprobene | - } | 10 | ט ו |
| | Bromoform | | _ | 10 | U |
| 108-10-1 | 4-Methyl-2-Pentar | ione | | 10 | רט |
| | 2-Hexanone | | | 10 | עט |
| | Tetrachloroethene | | _ | 10 | _ |
| | 1,1,2,2-Tetrachlo | | | 10 | U |
| 108-88-3 | Toluene | | | 10 | I . |
| 108-90-7 | Chlorobenzene | | _ | 10 | |
| 100-41-4 | Ethylbenzene | 1 | | 10 | į i |
| 100-42-5 | | | | 10 | |
| | Nviene (Total) | | | 10 | |
| 2000 000 | | | | | |
| | | | | | ' |

VOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED C

EPA SAMPLE NO.

| COMPOUNDS | · | JM180 | | |
|------------------|---|-------|--|--|
| ntract: 68D50009 | ı | | | |

Lab Name: COMPUCHEM ENV. CORP.

Lab Code: COMPU Case No.: 25253 SAS.No.:

SDG No.: JM180

Matrix: (soil/water) WATER

Lab Sample ID: 835205

Sample wt/vol: 5.0 (g/mL) mL

Lab File ID: CN035205A57

Level: (low/med) LOW

Date Received: 12/21/96

% Moisture: not dec.

Date Analyzed: 12/24/96

GC Column: DB624 ID: 0.53 (mm)

Number TICs found: 0

Dilution Factor: 1.0

Soil Aliquot Volume: ____(uL)

Soil Extract Volume: (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) ug/L

| CAS NUMBER COMPOUND NAME RT EST. CONC. Q | <u>'</u> | | _, | - | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-----------------------------------------|---------|-----------------------------------------|---------------|
| 1 2 3 3 4 4 5 5 5 5 5 6 5 7 7 7 7 7 7 7 7 7 7 7 7 7 | I | | | | , ~ |
| 3 . | , | ======================================= | ======= | ======================================= | ==== |
| 6 | 2. | | | <u> </u> | ļ |
| 6 | 3 | | | | - |
| 6 | 4. | | | | |
| 7 3 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 | 5 | | | | İ |
| 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. | 5 | · · · · · · · · · · · · · · · · · · · | . | | l |
| 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. | 3 | | | | |
| 11 | | | | | |
| 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. | 10. | | | | |
| 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. | 11 | | | | |
| 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. | 12. | | | | |
| 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. | 13 | | | | |
| 16. | 17. | | | | |
| 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. | | | ļ | | |
| 19. | | | | | |
| 20. | 18. | | | | |
| 21. | | <u>-</u> | | | |
| 22 | | | | | |
| 23. 24. 25. 26. 27. 28. 29. | | | | | |
| 24 | | | | | |
| 25. 26. 27. 28. 29. | | | | | |
| 27 | 25. | | | | |
| 28. 29. | | | | | |
| 29. | | | | | |
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and environment

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

JM180

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM180

Matrix: (soil/water) WATER

Lab Sample ID: 835205

Sample wt/vol: 5.0 (g/mL) mL Lab File ID: CN035205A57

Level: (low/med) LOW

Date Received: 12/21/96

% Moisture: not dec. _____

Date Analyzed: 12/24/96

GC Column:DB624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: ____ (uL)

CONCENTRATION UNITS:

| CAS NO. | COMPOUND | (ug/L or | ug/Kg) | ug/L . | Q |
|---------|----------|----------|--------|--------|---|
| | | | | | • |
| | • | | | | |
| | | | | | |
| | | | | | |

| | 1 | |
|-------------------------------------|----|---------------|
| 74-87-3Chloromethane | 10 | U |
| 74-83-9Bromomethane | 10 | 1 |
| 75-01-4Vinyl Chloride | 10 | |
| 75-00-3Chloroethane | 10 | |
| 75-09-2Methylene Chloride | 10 | l l |
| 67-64-1Acetone | 10 | |
| 75-15-0Carbon Disulfide | 10 | |
| 75-35-41,1-Dichloroethene | 10 | |
| 75-34-31,1-Dichloroethane | 10 | |
| 540-59-01,2-Dichloroethene (total) | 10 | 1 |
| 67-66-3Chloroform | 10 | |
| 107-06-21,2-Dichloroethane | 10 | _ |
| 78-93-32-Butanone | 10 | |
| 71-55-61,1,1-Trichloroethane | 10 | |
| 56-23-5Carbon Tetrachloride | 10 | _ |
| 75-27-4Bromodichloromethane | 10 | _ |
| 78-87-51, 2-Dichloropropane | 10 | |
| 10061-01-5cis-1,3-Dichloropropene | 10 | - |
| 79-01-6Trichloroethene | 10 | Ū. |
| 124-48-1Dibromochloromethane | 10 | |
| 79-00-51,1,2-Tricaloroethane | 10 | |
| 71-43-2Benzene | 10 | |
| 10061-02-6trans-1,3-Dichloropropene | 10 | |
| 75-25-2Bromoform | 10 | |
| 108-10-14-Methyl-2-Pentanone | 10 | |
| 591-78-62-Hexanone | 10 | |
| 127-18-4Tetrachloroethene | 10 | |
| 79-34-51,1,2,2-Tetrachloroethane | 10 | _ |
| 10S-S8-3Toluene | 1 | _ |
| 108-90-7Chlorobenzene | 10 | _ |
| 100-41-4Ethylbenzene | 10 | |
| 100-42-5Styrene | 10 | |
| 1330-20-7Xylene (Total) | 3 | J |
| | | |
| | · | ' |

DATA QUALIFIERS

- U The analyte was not detected at or above the reported result.
- J The analyte was positively identified. The associated numerical result is an estimate.
- R The data are unusable for all purposes.
- N There is evidence the analyte is present in this sample.
- JN There is evidence that the analyte is present. The associated numerical result is an estimate.
- UJ The analyte was not detected at or above the reported estimated result. The associated numerical value is an estimate of the quantitation limit of the analyte in this sample.

Holding Time Summary - Case 25253 SDG: JM180

| Sample Number | Collection Date | VTSR* | Analysis Date VOA | Extraction Date | Analysis Date BNA | Analysis Date Pest/PCB |
|------------------|--------------------|----------|-------------------------|--------------------|-------------------------|------------------------------|
| JM180 | 12/19/96 | 12/21/96 | 12/24/96 | 12/23/96 | 12/24/96 | 12/31/96 |
| JM181 | 12/19/96 | 12/21/96 | 12/24/96 | 12/23/96 | 12/25/96 | 12/31/96 |
| JM182 . | 12/19/96 | 12/21/96 | NA | 12/23/96 | 12/25/96 | 12/31/96 |
| JM183 | 12/18/96 | 12/21/96 | 12/24/96 | ЙÁ | NA | NA · |
| JM184 | 12/18/96 | 12/21/96 | 12/26/96 | : AN | NA | NA |
| JM185 | 12/16/96 | 12/21/96 | 12/24/96 | 12/23/96 | 12/25/96 | 12/31/96 |
| JM186 | 12/16/96 | 12/21/96 | 12/24/96 | 12/23/96 | 12/25/96 | 12/31/96 |
| JM187 | 12/16/96 | 12/21/96 | 12/24/96 | 12/23/96 | 12/25/96 | 12/31/96 |
| JM188 | 12/17/96 | 12/21/96 | 12/24/96 | 12/23/96 | 12/25/96 | 12/31/96 |
| JM189 | 12/17/96 | 12/21/96 | 12/26/96 | 12/23/96 | 12/25/96 | 12/31/96 |
| JM190 | 12/17/96 | 12/21/96 | 12/26/96 | 12/23/96 | 12/25/96 | 12/31/96 |
| האויים. | 12/20/96 | 12/21/95 | 12/26/96 | · NA | AN | РИ |

^{*}VTSR - Verified Time of Sample Receipt in the Laboratory ** NA - Not Analyzed

frequency of analysis of MS/MSD was met for all analyses. All of the applicable QC criteria for MS and MSD analyses were met. None of the data were qualified on this basis.

Internal Standards - Acceptable

The acceptance criteria for internal standards (IS) are ± 0.5 minutes for retention time shifts and -50% to +100% of the IS area as compared to the IS retention time and area of the continuing calibration standard. All of the GC/MS analyses met the IS area and retention time shift criteria. None of the data were qualified on this basis.

Compound Identification

All of the compounds detected in the GC/MS analyses were within the retention time windows and met the USEPA spectral matching criteria. The 4,4'-DDT detected in sample JM182 had a %D (833%) that grossly exceeded the criteria of 25%. In addition to this, the amount detected was very much below the quantitation limits. Based on the reviewer's professional judgment, the 4,4'-DDT in this sample was reported as a non-detect, "U".

Tentatively Identified Compounds

Peaks that were detected in the samples at areas >10% of the internal standards and were not part of the target compound lists were identified as tentatively identified compounds (TICs). TICs that were both found in the sample and the associated method blank(s) were qualified as unusable, "R". Peaks that were identified as common laboratory contaminants, solvent preservatives, column bleed or aldol condensation products were qualified as unusable, "R". The rest of the peaks identified as TICs were qualified "JN", tentatively identified at an estimated concentration.

Laboratory Contact

The laboratory was not contacted for this review.

Overall Assessment

All of the samples were analyzed in accordance with the SOW specifications. Data results, as qualified, are acceptable and can be used for all purposes.

| Date of Analysis | Frection | Compound | Associated Samples | Qualifier Detect/Non-Detect |
|---------------------|----------|-----------------------------------------------------------|--------------------------------------|--------------------------------|
| 12/24/96 | VOA" | acetone, 2-butanone, 4-methyl-2- pentanone, 2-hexanone | ,881ML ,811ML ,081ML 881ML ,781ML | 7\07 |
| 12/25/96 | VOA | acetone, 2-butanone, 4-methyl-2- | JM184, JM189, JM190, JM225 | J/NJ |

Compound Quantitation and Detection Limits - Acceptable

All of the samples were analyzed at the contract required quantitation limits (CRQLs). All of the reported results were within the calibration linear range and were adjusted for sample amount and percent moisture.

Blanks

The frequency of analysis of laboratory blanks was met. Background levels for all target compounds in the method blanks were below the CRQLs. However, trichloroethene was detected at 1 ppb in the instrument blank VIBLKLD. The trichloroethene detected in the samples analyzed after this blank at concentrations less than five times the value in the blank were qualified as non-detects, "U".

Analytical Sequence - Acceptable

All of the standards, blanks, samples and QC samples were analyzed in accordance with the SOW-specified analytical sequence for all three types of organic analyses.

System Monitoring Compounds (SMC)/Surrogates

All of the VOA, ABN and pest/PCB surrogate recoveries met the applicable QC criteria with the following exceptions:

JM180 - tetrachloro-m-xylene (TCX) - 316% (RTX-1701)

The TCX recovery for sample JM180 [calculated off the DB608 column] was 110%. The high percentage recovery calculated off the RTX-1701 column was due to interferences. Therefore, none of the associated data were qualified on this basis.

Matrix Spike/Matrix Spike Duplicate (MS/MSD) - Acceptable Sample JM190 was analyzed for VOA, BNAs, pest/PCB MS/MSD. The

Holding Time - Acceptable

The soil samples were preserved with ice prior to shipment. All of the samples met the method and technical (40 CFR 136 water criteria) required holding times for all analyses. The Holding Times Summary listing the pertinent collection, extraction and analysis dates is attached at the end of this validation report.

Instrument Performance - Acceptable

A total of one GC and two GC/MS systems were used in all of the analyses (1 GC/MS for VOA, 1 GC/MS for BNAs and 1 GC/ECDs for pest/PCBs). All of the systems met the SOW specified technical acceptance criteria prior to sample analyses i.e, tuning and GC/MS performance checks, resolution checks, retention time, response factors and calibrations. The systems remained stable throughout the course of analyses. Instrument blanks were all clean and there were no indications of carry-over.

Initial Calibrations

Three initial calibrations performed for VOAs, ABNs and pest/PCB analyses were evaluated. All of the initial calibrations performed met the SOW technical acceptance criteria with the exception of the following:

| Date of Analysis | Fraction | Compound | %RSD | Associated Samples | Qualifier Detects/Non-Detects |
|---------------------|----------|---------------------|------|-----------------------|----------------------------------|
| 12/17/96 | VOA | acetone | 32.4 | All samples | J/None |
| | | . <u>2 bidanone</u> | 35.8 | All Samples | J/None |

Both acetone and 2-butanone initial calibration curve were linear up to 100 ppb. Since none of the acetone and 2-butanone were detected at concentrations over 100 ppb, none of the data were qualified.

Continuing Calibrations

All of the continuing calibration verification standards (CCVs) met the criteria for frequency of analysis, the minimum response factor, the retention time, the chromatographic resolution, the relative percent difference (RPD) and the percent difference (%D) criteria with the following exceptions (The compounds listed below exceeded the %D criteria):



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION 10

1200 Sixth Avenue Seattle, Washington 98101

Reply To

Attn Of:

OEA-095

January 14, 1997

MEMORANDUM

Subject: Data Validation Report for Full Organic Analysis

(Volatile Organics, Semi-Volatile Organics, Pesticides and Polychlorinated Biphenyls) of Samples from the Nike Missile Test Launch Site Case: 25253 SDG: JM180

From: Ginna Grepo-Grove Chemist

Quality Assurance & Data Unit, OEA

To: Mark Ader, Site Manager

Office of Environmental Cleanup

The quality assurance (QA) review of 12 water samples collected from the above referenced site has been completed. These sample were analyzed for volatile organics (VOAs), semi-volatile organics (BNAs), pesticides and polychlorinated biphenyls (Pest/PCBs) in accordance with the USEPA Contract Laboratory Program (CLP) Statement of Work (SOW) for Organic Analyses (OLMO3.1) by Compuchem Environmental Corp., Research Triangle Park, NC. The following samples were reviewed in this report:

| JN180 | JM181 | JM182 | JM183 |
|-------|-------|-------|-------|
| JM184 | JM185 | JM186 | JM187 |
| JM188 | JM189 | JM190 | JM225 |

DATA QUALIFICATIONS

The following comments refer to the laboratory performance in meeting the Quality Control Specifications outlined in the USEPA CLP SOW for Organic Analysis (OLM03.1), and the USEPA CLP National Functional Guidelines for Organic Data Review (2/94).

The conclusions presented herein are based on the information provided for the review.



ecology and environment, inc.

International Specialists in the Environment

1500 First Interstate Center, 999 Third Avenue Seattle, Washington 98104 Tel: (206) 624-9537, Fax: (206) 621-9832 NEMORANDUM

DATE:

February 6, 1997

TO:

Mike Martin, START Project Manager, E & E, Seattle, WA

FROM:

Mark Woodke, START-Chemist, E & E, Seattle, WA

SUBJ:

Full Organic Data Quality Assurance Review, Former Nike Missile Site,

Poulsbo, WA

REF:

TDD: 96-11-0007

PAN: AK-07-01-SI-DM

The data quality assurance review of 12 water samples collected from the Former Nike Missile site in Poulsbo, Washington, has been completed. Full Organic analyses were performed by Compuchem Environmental Corporation, Research Triangle Park, NC.

The following discrepancies were noted in the original data validation report:

The narrative states that 12 water samples are included in the validation package, while the holding time section mentions soil samples. It was determined that all samples are water after verification with the project manager.

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:

Ecology & Environment, Inc.

Project:

Nike/TEC-600A

Sample Matrix: Water

Service Request: K9700286

Date Collected: 1/14/97

Date Received: 1/16/97

Date Extracted: NA

Date Analyzed: 1/27/97

Total Petroleum Hydrocarbons as Gasoline Washington DOE Method WTPH-G Units: µg/L (ppb)

| Sample Name | Lab Code | MRL | Result |
|--------------|--------------|-----|--------|
| DW-7 | K9700286-001 | 50 | ND Ü |
| DW-7-TB | K9700286-002 | 50 | ND J |
| Method Blank | K970127-MB | 50 | ND |

Approved By:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:

Ecology & Environment, Inc.

Project:

Nike/TEC-600A

Sample Matrix:

Water

Service Request: K9700286

Date Collected: 1/14/97

Date Received: 1/16/97

Date Extracted: 1/20/97
Date Analyzed: 1/21,22/97

Total Petroleum Hydrocarbon as Diesel Washington DOE Method WTPH-D Units: µg/L (ppb)

Analyte:

Diesel

Method Reporting Limit:

250

Sample Name

Lab Code

DW-7

K9700286-001

ND U

Method Blank

K970120-MB

ND

Mr 27-97

Approved By:

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Date

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ecology and environment

Page No.:



ecology and environment, inc.

International Specialists in the Environment

1500 First Interstate Center, 999 Third Avenue Seattle, Washington 95104 Tel: (206) 624-9537, Fax: (206) 621-9832

MEMORANDUM

DATE:

February 11, 1997

TO:

Mike Martin, START Project Manager, E & E, Seattle, WA

FROM:

Mark Woodke, START-Chemist, E & E, Seattle, WA

SUBJ:

Total Petroleum Hydrocarbon Data Quality Assurance Review,

Former Nike Missile Site, Poulsbo, WA

REF:

TDD: 96-11-0007

PAN: AK-07-01-SI-DM

Per the Task Monitor, a data quality assurance review of 2 water samples collected from the Former Nike Missile site in Poulsbo, Washington, was not performed. Total petroleum hydrocarbon analyses were performed by Columbia Analytical Services, Kelso, WA.

The samples were numbered:

DW-7

DW-7-TB

"U" qualifiers were added by the data reviewer to indicate results below the quantitation limit.

Data Qualifiers and Definitions

U - The material was analyzed for but was not detected. The associated numerical value is the estimated sample quantitation limit.

EPA SAMPLE NO.

| b Name: SOUT | THWEST_LABOR | LATORY | Contract: 6 | 58-D5-0137 | MJM896 |
|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|------------------------------------------|------------------------------------------|
| b Code: SWOR | Ca | se No.: 25 | 253_ SAS No. | : | SDG No.: MJM858 |
| trix (soil/w | vater): WATE | R . | | Lab Samp | le ID: 28060.38 |
| vel (low/med | i): LOW_ | | | Date Rece | eived: 12/21/96 |
| Solids: ' | 0. | 0 | | . • | • |
| Co | ncentration | Units (ug, | /L or mg/kg dr | y weight): | UG/L_ |
| | CAS No. | Analyte | Concentration | C Q | М |
| | 7440-36-0 7440-38-2 7440-39-3 7440-41-7 7440-43-9 7440-47-3 7440-48-4 7440-50-8 7439-89-6 7439-92-1 7439-95-4 7439-96-5 7439-96-5 7439-97-6 7440-02-0 7440-09-7 7782-49-2 7440-23-5 | Aluminum Antimony Arsenic Barium Beryllium Cadmium Calcium Chromium Cobalt Copper Iron Lead Magnesium Manganese Mercury Nickel Potassium Selenium Silver Sodium Thallium Vanadium Zinc Cyanide | 52.2 3.0 3.0 1.0 1.0 1.0 84.4 1.0 1.0 27.9 1.0 22.0 1.0 22.0 1.0 3.20 1.0 41.0 4.0 1.0 3.26 2.0 1.0 8.9 | שַ ט ט ט ט ט ט ט ט ט ט ט ט ט ט ט ט ט ט ט | P. P. P. P. P. P. P. P. P. P. P. P. P. P |
| | | | | | |
| or Before: | COLORLESS | Clarit | y Before: CLEA | <u> </u> | Texture: |
| or After: | COLORLESS | Clarit | y After: CLEA | LR_ 1 | Artifacts: |
| nents: | | | | · | |
| | | | | | |
| | | | | | |

FORM I - IN

ILM04.0

| EDD | SAMPLE | NO |
|-----|--------|----|

| ab Name: SOIT | THWEST LABOR | LATORY | Contract: 6 | 8-D5-0133 | MJM895 |
|---------------|------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|-----------|---------------------------------------|
| • | - | | | | SDG No.: MJM858 |
| atrix (soil/v | vater): WATE | R | • | Lab Samp | ole ID: 28060.37 |
| evel (low/med | d): LOW_ | <u>.</u> | | Date Rec | ceived: 12/21/96 |
| Solids: | 0. | 0 | | | |
| Cá | oncentration | Units (ug | /L or mg/kg dr | y weight) | : UG/L_ |
| | CAS No. | Analyte | Concentration | C Q | M |
| | 7439-97-6 7440-02-0 7440-09-7 7782-49-2 7440-22-4 7440-23-5 7440-62-2 7440-66-6 | Antimony_Arsenic_Barium_Beryllium Cadmium_Calcium_Chromium_Cobalt_Copper_Iron_Lead_Magnesium Manganese Mercury_Nickel_Potassium Selenium_Silver_Sodium_Thallium_Vanadium_Zinc_Cyanide | 63.9 4130 11.6 1.6 156000 601 227 533 310000 63.6 90700 3890 0.24 1220 13700 7.9 1.0 13800 5.5 913 - 646 | | P P P P P P P P P P |
| | BROWN | | y Before: CLOU | | Texture: |
| olor After: | YELLOW | Clarit | y After: CLEA | IR_ | Artifacts: |
| omments: | | | | | |
| | | | | | |

010 EPA SAMPLE NO.

: 1 INORGANIC ANALYSES DATA SHEET

| | İ |
|--------|---|
| MJM894 | |

| Lab Name: SOU | THWEST_LABO | RATORY | Contract: 6 | 8-D5-0137 | MJM894 |
|---------------|-----------------------------------------------------------------------------------------|-------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|-------------|---------------------------------------|
| .ab Code: SWC |)K Ca | ase No.: 25 | 253_ SAS No. | : | SDG No.: MJM858 |
| !atrix (soil/ | water): WATE | ER | · | Lab Sampl | e ID: 28060.36 |
| evel (low/me | d): LOW_ | | | Date Rece | eived: 12/21/96 |
| Solids: | 0. | 0 . | | | |
| C | oncentration | units (ug | /L or mg/kg dr | y weight).: | UG/L_ |
| | CAS No. | Analyte | Concentration | C Q | M |
| | 7439-95-4 7439-96-5 7439-97-6 7440-02-0 7440-09-7 7782-49-2 7440-22-4 | Antimony_Arsenic_Barium_Beryllium_Cadmium_Calcium_Chromium_Cobalt | 179000 5.2 22.9 1100 2.5 1.0 35800 172 68.2 136 109000 18.7 30700 2380 0.20 402 6260 5.6 1.0 10400 8.0 294 173 | | P P P P P P P P P P P P P P P P P P P |
| lor Before: | BROWN | Clariț | y Before: CLOU | DY T | Cexture: |
| lor After: | YELLOW | Clarit | y After: CLEA | R_ , A | artifacts: |
| mments: | | | | | : |
| | | | | | |

FORM I - IN

ILM04.0

EPA SAMPLE NO.

| Lab Name: SOU | THWEST_LABOR | RATORY | Contract: 6 | 8-D5-0137 | MJM887 |
|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|
| lab Code: SWO | K Ca | ase No.: 25 | 253_ SAS No. | : | SDG No.: MJM858 |
| latrix (soil/ | water): WATE | ER | | Lab Samp | le ID: 28060.29 |
| evel (low/med | d): LOW_ | | | Date Rec | eived: 12/21/96 |
| Solids: | 0 . | 0 | | | • |
| . Co | oncentration | Units (ug | /L or mg/kg dr | y weight) | : UG/L_ |
| | CAS No. | Analyte | Concentration 26.2 | | M |
| | 7440-36-0 7440-38-2 7440-39-3 7440-41-7 7440-43-9 7440-47-3 7440-48-4 7440-50-8 7439-95-4 7439-95-4 7439-95-5 7439-95-5 7439-97-6 7440-02-0 7440-23-5 | Antimony Arsenic Barium Beryllium Cadmium Calcium Chromium Cobalt Copper Iron Lead Magnesium Manganese Mercury Nickel Potassium Selenium Silver Sodium Thallium Vanadium Zinc Cyanide | 3.0 3.0 2.3 1.0 1.0 8970 3.9 1.0 1.0 1.0 9860 1.0 0.20 1.0 | משטעטעט טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעס טעטעטעטע | 1, p, p, p, p, p, p, p, p, p, p, p, p, p, |
| olor Before: | COLORLESS | Clarit | y Before: CLEA | AR_ | Texture: |
| olor After: | COLORLESS | Clarit | y After: CLEA | AR_ | Artifacts: |
| omments: | | | | | · |
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FORM I - IN

EPA SAMPLE NO.

| ab Name: SOUT | 'HWEST LABOR | ATORY | Contract: 6 | 58-D5-0137 | MJM863 |
|---------------|----------------------------------------------------------------------------|------------------------------------------------------------------------|------------------------------------------|---------------------------------|------------------------------------------|
| | Ca | se No.: 25 | | : | SDG No.: MJM858 |
| | • | | | - | |
| evel (low/med |): FOM_ | _ | ٠ | Date Rec | eived: 12/21/96 |
| Solids: | 0. | 0 . | | • | • |
| . Co. | ncentration | Units (ug | /L or mg/kg dr | y weight) | : UG/L_ |
| | CAS No. | Analyte | Concentration | C Q | М |
| | 7440-36-0 7440-38-2 7440-39-3 7440-41-7 7440-43-9 | Aluminum_ Antimony_ Arsenic_ Barium_ Beryllium Cadmium_ | 1.0 | บ บ บ บ บ | |
| | 7440-47-3 7440-48-4 7440-50-8 7439-89-6 7439-92-1 | Calcium_ Chromium_ Cobalt_ Copper_ Iron_ Lead | 8940 4.0 1.0 1.0 19.2 1.0 | 度 U U ・ U を U | p. p. p. p. p. p. p. p. p. p. p. p. p. p |
| | 7439-95-4 7439-96-5 7439-97-6 7440-02-0 7440-09-7 7782-49-2 | Magnesium Manganese Mercury_ Nickel_ Potassium Selenium | 9840 1.0 0.20 1.0 828 4.0 | U U U | |
| | 7440-22-4 7440-23-5 7440-28-0 7440-62-2 7440-66-6 | SilverSodiumThallium_Vanadium_Zinc | 1.0 4490 2.0 6.0 7.4 | U B | p, p, p, p, p, p, p, p, p, p, p, p, p, p |
| | | Cyanide | | | NR |
| lor Before: | COLORLESS | Clarit | y Before: CLEA | UR | Texture: |
| lor After: | COLORLESS | Clarit | y After: CLEA | AR_ | Artifacts: |
| nments: | | | | | • |
| | | | | | |

FORM I - IN

ILM04.0

EPA SAMPLE NO.

| ab Name: SOU | THWEST_LABOF | LATORY | Contract: 6 | 8-D5-0137 | MJM862 |
|--------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|-----------------------------------------|-----------------|
| ab Code: SWO | K Ca | se No.: 25 | 253_ SAS No. | : | SDG No.: MJM858 |
| etrix (soil/ | water): WATE | IR | | Lab Samp | le ID: 28060.05 |
| evel (low/me | g): FOM_ | | | Date Rec | eived: 12/21/96 |
| Solids: | 0. | 0 | · | | |
| · C | oncentration | Units (ug | /L or mg/kg dr | y weight) | : UG/L_ |
| | CAS No. | Analyte | Concentration | C Q | М |
| | 7440-70-2 7440-47-3 7440-48-4 7440-50-8 7439-89-6 7439-95-4 7439-96-5 7439-97-6 7440-02-0 7440-09-7 7782-49-2 7440-23-5 7440-23-5 7440-28-0 7440-62-2 | Aluminum_ Antimony_ Arsenic_ Barium_ Beryllium Cadmium_ Calcium Chromium_ Cobalt_ Copper_ Iron_ Lead_ Magnesium Manganese Mercury_ Nickel_ Potassium Selenium_ Silver_ Sodium_ Thallium_ Vanadium_ Zinc_ Cyanide | 1.0 12400 2.0 1.0 11.7 14.8 1.0 | ש ש ט ט ט ט ט ט ט ט ט ט ט ט ט ט ט ט ט ט | |
| lor Before: | COLORLESS | Clarit | y Before: CLEA | R_ | Texture: |
| lor After: | COLORLESS | Clarit | y After: CLEA | IR_ | Artifacts: |
| mments: | | | | | |
| | | | | | |

| מסים | SAMPLE | NΤΟ |
|------|--------|------|
| | | TAO. |

| ab Name: SOU | THWEST_LABOR | ATORY | Contract: 6 | 8-D5-0137 | MJM861 |
|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------|------------------|
| ab Code: SWO | K Ca | se No.: 25 | 253_ SAS No. | : | SDG No.: MJM858 |
| atrix (soil/ | water): WATE | R | | Lab Samp | ole ID: 28060.04 |
| evel (low/me | d): LOW_ | | | Date Rec | eived: 12/21/96 |
| Solids: | <u> </u> | 0 | | | |
| . C | oncentration | Units (ug | /L or mg/kg dry | y weight) | : UG/L_ |
| | CAS No. | Analyte | Concentration | C Q | M |
| | 7440-38-2 7440-39-3 7440-41-7 7440-43-9 7440-47-3 7440-48-4 7440-50-8 7439-89-6 7439-92-1 7439-95-4 7439-95-4 7439-96-5 7439-97-6 7440-02-0 7440-09-7 7782-49-2 7440-23-5 7440-28-0 | Aluminum_ Antimony_ Arsenic_ Barium_ Beryllium Cadmium_ Calcium_ Chromium_ Cobalt_ Copper_ Iron_ Lead_ Magnesium Manganese Mercury_ Nickel_ Potassium Selenium_ Silver_ Sodium_ Thallium_ Vanadium_ Zinc_ Cyanide_ | 24.1 3.0 3.0 2.2 1.0 1.0 10200 2.6 1.0 17.8 1.0 10100 1.0 0.20 1.0 1.00 1.00 2.6 0.20 1.0 1.00 0.20 1.0 1.00 0.20 1.0 1.00 0.20 1.00 1.0 | ע ש ט ע ש ט ע ט ע ט ט ט ט ט ט ט ט ט ט ט ט ט ט ט ט | |
| lor Before: | COLORLESS | Clarit | y Before: CLEA | R_ | Texture: |
| lor After: | COLORLESS | Clarit | y After: CLEA | R_ | Artifacts: |
| mments: | | | | | |
| | | | | | |

FORM I - IN

ILMO4.0

| EPA | SAMPLE | NO |
|-----|--------|----|
|-----|--------|----|

| Lab Name: SOUT | THWEST_LABOR | ATORY | Contract: 6 | 8-D5-0137 | MJM860 |
|----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|-----------|----------------------|
| Lab Code: SWO | K Ca | se No.: 25 | 253_ SAS No. | : | SDG No.: MJM858 |
| Matrix (soil/v | vater): WATE | R | | Lab Samp | le ID: 28060.03 |
| Level (low/med | d): LOW_ | <u>.</u> | | Date Rec | eived: 12/21/96 |
| % Solids: | 0. | 0 | | , | |
| Color Before: | CAS No. 7429-90-5 7440-36-0 7440-38-2 7440-39-3 7440-41-7 7440-43-9 7440-47-3 7440-48-4 7440-50-8 7439-95-4 7439-95-4 7439-95-5 7439-95-6 7440-02-0 7440-02-0 7440-23-5 7440-28-0 | Analyte Aluminum Antimony Arsenic Barium Beryllium Cadmium Calcium Chromium Cobalt Copper Iron Lead Magnesium Manganese Mercury Nickel Potassium Selenium Silver Sodium Thallium Vanadium Zinc Cyanide | 4.0 1.0 6340 2.0 | C Q | UG/L M P A (|
| lolor After: | COLORLESS | Clarit | y After: CLEA | .R_ | Artifacts: |
| lomments: | | | | | |

| א מים | CAMOUN | λīΛ |
|-------|--------|-----|
| LPA | SAMPLE | NO |

| ab Name: SOU | THWEST LABOR | LATORY | Contract: 6 | 58-D5-0137 | MJM859 |
|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|-------------------------------------------|
| | _ | | | | SDG No.: MJM858 |
| atrix (soil/ | water): WATE | IR . | | Lab Sampl | le ID: 28060.02 |
| evel (low/med | d): rom_ | | | Date Rece | eived: 12/21/96 |
| Solids: | 0. | 0 | | • | |
| Co | oncentration | Units (ug | /L or mg/kg dr | y weight): | UG/L_ |
| | CAS No. | Analyte | Concentration | C Q | м |
| | 7440-38-2 7440-39-3 7440-41-7 7440-43-9 7440-47-3 7440-48-4 7440-50-8 7439-89-6 7439-95-4 7439-95-4 7439-96-5 7439-97-6 7440-02-0 7440-02-0 7440-02-1 7782-49-2 7440-22-4 | Cadmium Calcium Chromium Cobalt Copper Iron Lead Magnesium Manganese Mercury Nickel Potassium Selenium Silver Sodium Thallium | 25.4 3.0 3.0 2.6 1.0 10900 5.2 1.0 1.6 92.5 1.0 10100 3.0 0.20 1.0 943 4.0 1.0 5760 2.0 6.3 77.8 | | P- /// /// //// /// /// //// //// /////// |
| lor Before: | COLORLESS | Clarit | y Before: CLEA | AR_ T | Texture: |
| lor After: | COLORLESS | Clarit | y After: CLEA | AR_ A | Artifacts: |
| nments: | | | | • | |
| | | | | | |

FORM I - IN

ILM04.0

EPA SAMPLE NO.

| ab Name: SOUT | HWEST_LABOR | ATORY | Contract: 6 | 8-D5-0137 | MJM858 |
|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|-----------------|
| ab Code: SWOK | Ca | se No.: 25 | 253_ SAS No. | : | SDG No.: MJM858 |
| atrix (soil/w | rater): WATE | R | | Lab Samp | le ID: 28060.01 |
| evel (low/med | LOW_ | | | Date Rec | eived: 12/21/96 |
| Solids: | 0. | 0 | | | |
| Co | ncentration | Units (ug, | /L or mg/kg dr | y weight) | : UG/L_ |
| | CAS No. | Analyte | Concentration | C Q | M |
| | 7440-38-2 7440-39-3 7440-41-7 7440-43-9 7440-47-3 7440-48-4 7440-50-8 7439-89-5 7439-95-4 7439-95-4 7439-95-4 7439-96-5 7440-02-0 7440-02-7 7782-49-2 7440-23-5 | Beryllium Cadmium Calcium Chromium Cobalt Copper Iron Lead Magnesium Manganese Mercury Nickel | 1.0 1.0 10600 4.1 1.0 6.0 10.0 1.0 8790 1.0 0.20 1.0 681 4.0 1.0 5450 2.0 | ען עטאָטטטן טטאָטאַן טטאָטאַן טטאָטאַן טטאָטטאַן טטאָטטאַן טטאָטטאַן טטאָטטאַן ט | |
| olor Before: | COLORLESS | Clarit | y Before: CLEA | AR_ | Texture: |
| olor After: | COLORLESS | Clarit | y After: CLEA | AR_ | Artifacts: |
| omments: | | | | | |

Below are the definitions for the National Functional Guidelines for Inorganic Data Review (02/94) qualifiers used when validating/qualifying data from Inorganic analysis.

DATA QUALIFIERS

- U The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit.
- J The associated value is an estimated quantity.
- R The data are unusable. (Note: Analyte may or may not be present.)
- UJ The material was analyzed for, but was not detected. The associated value is an estimate and may be inaccurate or imprecise.

11.0 ICP-AES Serial Dilution - Acceptable

Sample MJM863 was analyzed by ICP-AES serial dilution to check for potential interferences. All analytes which exceeded the minimum concentration criterion (50 times the IDL) agreed within 10% RPD. No qualification was made on this basis.

12.0 Detection Limits - Acceptable

Sample results which fall below the instrument detection limit (IDL) are assigned the value of the instrument detection limit and the 'U' qualifier is attached.

13.0 Overall Assessment of the Data

This validation of the data is based on the criteria outlined in the National Functional Guidelines for Inorganic Data Review (02/94). Approximately 7.4% of the data was qualified based on blank contamination and interference.

Definitions of Functional Guideline qualifiers are attached.

recycled paper recycled paper recycled baper ecology and environment ecology and environment ecology, and environment checked for false positives, false negatives and biased results.

Antimony in sample MJMS95 was detected at 8.663 $\mu g/L$. The estimated instrument response for antimony (using Table 2 in ILM04.0, page D-26) due to interfering aluminum and iron is 2.4436 $\mu g/L$ which is slightly below the instrumental detection limit(3.0 $\mu g/L$). Antimony in most of the samples in this SDG was undetected (further indicating that the result in the sample with interferences could be a false positive or positively biased). There were a couple of hits for antimony under 6 $\mu g/L$ in samples without interfering elements. Due to the magnitude of the positive bias compared to the result (about 28.2% of the total result), antimony in sample MJM895 was qualified J, estimated. For the same reasons, thallium (result of 5.445 $\mu g/L$, estimated positive bias of 1.4 $\mu g/L$) in sample MJM895 was qualified J, estimated.

The rest of the analytes in MJN895 either did not have estimated interferences specified in Table 2 or had results where the estimated interference was less than 20% of the analytical result. No further qualification was made based on interfering analytes.

7.0 Duplicate Analysis - Acceptable

Duplicate analysis was done on sample MJM863. All results above the laboratory's instrumental detection limit were within the $\pm 20\%$ RPD criterion (\pm CRDL for results < 5 times the CRDL). No data qualification was made based on ICP-AES or CVAA duplicate sample analysis.

8.0 Field Duplicate Analysis - Not Applicable

Field duplicate analysis was not indicated in the field collection documentation.

9.0 Matrix Spike Analysis - Acceptable

Matrix spike sample analyses are done to provide information about the effect of the sample matrix on digestion and measurement methods. Matrix spike recovery must be within the limits of 75 - 125% for water.

Matrix spike analysis was done on sample MJM863. All matrix spike recoveries were within the specified limits; therefore, no qualification was made on this basis.

10.0 Graphite Furnace Atomic Absorption Spec (GFAAS) QC - Not Applicable

GFAAS was not used for the analysis of these samples.

All procedural blanks met the acceptance criteria except for zinc. Zinc was detected in the procedural blank at 2.923 μ g/L. Zinc results for samples MJM861, MJM863, MJM887 and MJM896 were qualified U, undetected. No further qualification was made based on the procedural blank results.

Several ICP-AES continuing calibration blanks (CCBs) resulted in detectable levels of Aluminum, Antimony and Calcium. All calcium results were greater than five times the blank contamination level. However, a number of the reported aluminum and antimony values affected by the associated CCBs were less than five times the amount found in the CCBs:

| Analytė | Associated blank values in μ g/L | Qualified Samples* |
|----------|--------------------------------------|------------------------------------------------------------------------------|
| Aluminum | 19.03 and 28.25 28.25 and 28.84 | MJM858 MJM859 MJM860 MJM861 MJM862 MJM887 MJM863 MJM896 |
| Antimony | 3.197 | MJM858 MJM894 MJM895 |

The results for samples listed after the analytes in the table above, were qualified U, undetected.

No further qualifications were made based on ICP-AES continuing calibration blanks.

6.0 ICP-AES Interference Check Sample.

The interference check sample (ICS) is analyzed by ICP-AES to verify interelement and background correction factors. Analysis is required at the beginning and end of each sample analysis run and recoveries must be between 80% and 120%. All ICS recoveries were within the recovery criterion. No data qualification was made based on ICP-AES interference check sample analysis.

A couple of analytes not present in the ICS solution A (interfering analytes without analytes of interest) had positive results and in some cases, negative results with absolute values greater than the instrumental detection limit. This could result in biased data in samples that have similar levels of interfering analytes. Only one sample (MJM80% had interferant analytes (aluminum and column) emitted similar or conductor levels than the ICS samples. The representative and missing analytes and missing analytes are representative.

2.0 Sample Preparation - Acceptable

Samples were prepared for mercury analyses on 12/30/96. Samples were prepared for ICP-AES analyses on 12/27/96. No qualification was made based on sample preparation.

3.0 Calibrations/Calibration Verifications

All samples were analyzed for mercury by CVAAS on 12/30/96. Initial calibration included one blank and five standards. The curve was linear with a correlation coefficient greater than 0.995.

All samples were analyzed by ICP-AES on 12/28/96. The instrument was standardized according to the analytical method using one blank and a single calibration standard for each element.

All calibrations were performed as required and met the acceptance criteria; therefore, no qualification was made on this basis.

Calibration verification samples are required before and after sample analysis and after every 10 samples during analysis. Mercury recoveries must be within 80-120%. Other metal recoveries must be within 90-110%.

All CVAAS (mercury) and ICP-AES calibration verification samples met the recovery criteria. Calibration verification samples were analyzed after every ten samples. No qualification was made based on CVAAS calibration verification.

4.0 Laboratory Control Samples - Acceptable

Laboratory Control samples (not_required for water mercury analyses) are digested and analyzed along with the samples to verify the efficiency of laboratory procedures. Acceptable limits of recovery for all metals analyses are \$0-120%. All recoveries met the acceptance criteria for control samples and no qualification was made on this basis.

Contract Required Detection Limit (CRDL) standards are required to demonstrate a linear calibration curve near the CRDL. CRDL standards were run at the required frequency.

5.0 Blanks - Acceptable for Mercury

Procedural blanks were prepared with the samples to show potential contamination from the digestion or analytical procedure. If an analyte was found in the associated blank, the sample results were qualified if the analyte concentration was less than five times the analytical value in the blank.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION 10

1200 Sixth Avenue Seattle, Washington 98101

IN REPLY

REFER TO: OEA-095

January 22, 1997

MEMORANDUM

SUBJECT: Nike Missile Launch Site CLP Metals Analysis, Data

Validation Case: 25253 SDG: MJM858

FROM:

Laura Castrilli, Chemist

Quality Assurance and Data Unit, OEA

TO:

Mark Ader, Project Manager

Office of Environmental Cleanup

CC:

Ray Flores, Region 6 CLP TPO, electronic memo only

Bruce Woods, Region 10 CLP TPO

The following is a validation of ICP-AES, and mercury analysis of 10 water samples from the Nike Missile Launch site. The analyses were performed following the USEPA Contract Laboratory Program Statement of Work for Inorganics Analysis Multi-media, Multi-Concentration, ILM04.0. Analyses were conducted by Southwest Laboratories of Oklahoma, Inc., Broken Arrow, Oklahoma. This validation was conducted for the following samples:

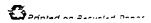
MJM858 MJM860 MJM862 MJM887 MJM895 MJM859 MJM861 MJM863 MJM894 MJM896

Data Qualifications

The following comments refer to the Southwest laboratory's performance in meeting quality control specifications outlined in the CLP Statement of Work (CLP-SOW) for Inorganic Analysis, rev. ILM04.0. The comments presented herein are based on the information provided for the review.

1.0 Timeliness - Acceptable

The suggested holding time from the date of collection for mercury in water is 28 days. The holding time for the remaining metals in water is 180 days. Collection of the water samples began on 12/16/96. Mercury analyses were completed on 12/30/96. ICP-AES analyses were completed on 12/28/96.





ecology and environment, inc.

International Specialists in the Environment

1500 First Interstate Center, 999 Third Avenue Seattle, Washington 98104 Tel: (206) 624-9537, Fax: (206) 621-9832 NEMORANDUM

DATE:

February 6, 1997

TO:

Mike Martin, START Project Manager, E & E, Seattle, WA

FROM:

Mark Woodke, START-Chemist, E & E, Seattle, WA

SUBJ:

Inorganic Data Quality Assurance Review, Former Nike Missile Site,

Poulsbo, WA

REF:

TDD: 96-11-0007

PAN: AK-07-01-SI-DM

The data quality assurance review of 10 water samples collected from the Former Nike Missile site in Poulsbo, Washington, has been completed. Inorganic analyses were performed by Southwest Laboratory of Oklahoma, Broken Arrow, OK.

The following change was made to the original data validation report:

The "B" flags, indicating a concentration above the instrument detection limit but below the contract required detection limit, were deleted.

ecology and environment ecology and environment

1 INORGANIC ANALYSES DATA SHEET

| Lab Name: SO | UTHWEST_LABOF | LATORY | Contract: 6 | 8-D5-0137 | MJM958 |
|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|-------------------|
| Lab Code: SW | OK Ca | ase No.: 25 | 276_ SAS No. | : | . SDG No.: MJM958 |
| Matrix (soil, | /water): WATE | IR . | | Lab Samp | le ID: 28188.01 |
| Level (low/ma | ed): LOW_ | | · . | Date Rece | eived: 01/17/97 |
| <pre>\$ Solids:</pre> | 0. | 0 | | | |
| | Concentration | Units (ug | /L or mg/kg dr | y weight): | UG/L_ |
| | CAS No. | Analyte | Concentration | C Q | M |
| plor Before: | 7429-90-5 7440-36-0 7440-38-2 7440-41-7 7440-43-9 7440-47-3 7440-47-3 7440-48-4 7440-50-8 7439-96-5 7439-96-5 7439-96-5 7439-97-6 7440-02-0 7440-09-7 7782-49-2 7440-23-5 7440-28-0 7440-66-6 | Nickel Potassium Selenium Silver Sodium Thallium Vanadium Zinc Cyanide | 43.7 2.1 3.0 53.5 1.0 1.1 8230 5.8 4.5 133 33800 39.9 5530 308 0.20 7.2 1330 3.0 1.0 5770 2.8 5.1 1920 | A U M U M I M M U U M M U U M M U U M M U U M M M U U M M M M M M M M M M M M M M M M M M M M | |
| | | | - | _ | • |
| nlor After: | COLORLESS | Clarit | v After: CLEA | 7.5 | Artifacts: |

mments:

10.0 Graphite Furnace Atomic Absorption Spec (GFAAS) QC - Not Applicable

GFAAS was not used for the analysis of this sample.

11.0 ICP-AES Serial Dilution - Acceptable

Sample MJM958 was analyzed by ICP-AES serial dilution to check for potential interferences. All analytes which exceeded the minimum concentration criterion (50 times the IDL) agreed within 10% RPD. No qualification was made on this basis.

12.0 Detection Limits - Acceptable

Sample results which fall below the instrument detection limit (IDL) are assigned the value of the instrument detection limit and the 'U' qualifier is attached.

13.0 Overall Assessment of the Data

This validation of the data is based on the criteria outlined in the National Functional Guidelines for Inorganic Data Review (02/94). None of the data was qualified (except for the 'U' qualifier for undetected analytes).

Below are the definitions for the National Functional Guidelines for Inorganic Data Review (02/94) qualifiers used when validating/qualifying data from Inorganic analysis.

DATA QUALIFIERS

- U The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit.
- J The associated value is an estimated quantity.
- R The data are unusable. (Note: Analyte may or may not be present.)
- UJ The material was analyzed for, but was not detected. The associated value is an estimate and may be inaccurate or imprecise.

3.0 Calibrations/Calibration Verifications - Acceptable

The sample was analyzed for mercury by CVAAS on 01/21/97. Initial calibration included one blank and five standards. The curve was linear with a correlation coefficient greater than 0.995.

The sample was analyzed by ICP-AES on 01/24/97 and a post digestion spike for zinc was analyzed by ICP-AES on 01/28/97. The instrument was standardized according to the analytical method using one blank and a single calibration standard for each element for each day of analysis.

All calibrations were performed as required and met the acceptance criteria; therefore, no qualification was made on this basis.

Calibration verification samples are required before and after sample analysis and after every 10 samples during analysis. Mercury recoveries must be within 80-120%. Other metal recoveries must be within 90-110%.

All CVAAS (mercury) and ICP-AES calibration verification samples met the recovery criteria. Calibration verification samples were analyzed after every ten samples. No qualification was made based on CVAAS calibration verification.

4.0 Laboratory Control Samples - Acceptable

Laboratory Control samples (not required for water mercury analyses) are digested and analyzed along with the samples to verify the efficiency of laboratory procedures. Acceptable limits of recovery for all metals analyses are 80-120%. All recoveries met the acceptance criteria for control samples and no qualification was made on this basis.

Contract Required Detection Limit (CRDL) standards are required to demonstrate a linear calibration curve near the CRDL. CRDL standards were run at the required frequency.

5.0 Blanks - Acceptable for Mercury

Procedural blanks were prepared with the samples to show potential contamination from the digestion or analytical procedure. If an analyte was found in the associated blank, the sample results were qualified if the analyte concentration was less than five times the analytical value in the blank.

All procedural blanks met the acceptance criteria except for Aluminum, Calcium, Iron, Sodium and Zinc. However, sample analyte levels for these compounds were greater than five times the associated blank level. Therefore, no qualification was made based on the procedural blank results.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION 10

1200 Sixth Avenue Seattle, Washington 98101

IN REPLY

REFER TO: OEA-095

February 5, 1997

MEMORANDUM

SUBJECT:

Nike Missile Launch Site CLP Metals Analysis, Data

Validation Case: 25276 SDG: MJM958

FROM:

Laura Castrilli, Chemist

Quality Assurance and Data Unit, OEA

TO:

Mark Ader, Project Manager

Office of Environmental Cleanup

CC:

Ray Flores, Region 6 CLP TPO, electronic memo only

Bruce Woods, Region 10 CLP TPO

The following is a validation of ICP-AES, and mercury analysis of one water sample from the Nike Missile Launch site. The analyses were performed following the USEPA Contract Laboratory Program Statement of Work for Inorganics Analysis Multi-media, Multi-Concentration, ILM04.0. Analyses were conducted by Southwest Laboratories of Oklahoma, Inc., Broken Arrow, Oklahoma. This validation was conducted for sample MJM958.

Data Qualifications

The following comments refer to the Southwest laboratory's performance in meeting quality control specifications outlined in the CLP Statement of Work (CLP-SOW) for Inorganic Analysis, rev. ILM04.0. The comments presented herein are based on the information provided for the review.

Timeliness - Acceptable

The suggested holding time from the date of collection for mercury in water is 28 days. The holding time for the remaining metals in water is 180 days. The water sample was collected on 01/14/97. Mercury analyses were completed on 01/21/97. ICP-AES analyses were completed on 01/28/97.

Sample Preparation - Acceptable

The sample was prepared for mercury analyses on 01/21/97. The sample was prepared for DP-AES analyses on 01/20/97. No quado production was ecology and environment made based recycled paper le preparation.



ecology and environment, inc.

International Specialists in the Environment

1500 First Interstate Center, 999 Third Avenue Seattle, Washington 98104 Tel: (206) 624-9537, Fax: (206) 621-9832 MEMORANDUM

DATE:

February 6, 1997

TO:

Mike Martin, START Project Manager, E & E, Seattle, WA

FROM:

Mark Woodke, START-Chemist, E & E, Seattle, WA MM

SUBJ:

Inorganic Data Quality Assurance Review, Former Nike Missile Site,

Poulsbo, WA

REF:

TDD: 96-11-0007

PAN: AK-07-01-SI-DM

The data quality assurance review of 1 water sample collected from the Former Nike Missile site in Poulsbo, Washington, has been completed. Inorganic analyses were performed by Southwest Laboratory of Oklahoma, Broken Arrow, OK.

The following change was made to the original data validation report:

The "B" flags, indicating a concentration above the instrument detection limit but below the contract required detection limit, were deleted.

EPA SAMPLE NO.

JM198

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.:

SDG No.: JM166

Matrix: (soil/water) SOIL

Lab Sample ID: 835284

Sample wt/vol: 30.2 (g/mL) G Lab File ID:

% Moisture: 9 decanted: (Y/N) N Date Received: 12/21/96

Extraction: (SepF/Cont/Sonc) SONC Date Extracted:12/23/96

Concentrated Extract Volume: 5000(uL)

Date Analyzed: 01/02/97

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.9 Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/KG Q

| | · · · · · · · · · · · · · · · · · · · | |
|-----------------------------|---------------------------------------|--------|
| 319-84-6alpha-BHC | 1.8 | U· |
| 319-85-7beta-BHC | 1.8 | |
| 319-86-8delta-BHC | 1.8 | |
| 58-89-9gamma-BHC (Lindane) | 1.8 | |
| 76-44-8Heptachlor | 1.8 | Ū |
| 309-00-2Aldrin | 1.8 | |
| 1024-57-3Heptachlor epoxide | 1.8 | |
| 959-98-8Endosulfan I | 1.8 | |
| 60-57-1Dieldrin | 3.6 | Ū |
| 72-55-94,4'-DDE | 3.2 | |
| 72-20-8Endrin | 3.6 | |
| 33213-65-9Endosulfan II | | |
| 72-54-84,4'-DDD | 1 | |
| 1031-07-8Endosulfan sulfate | 3.6 | |
| 50-29-34,4'-DDT | 5.1 | |
| 72-43-5Methoxychlor | 0.62 | JPB // |
| 53494-70-5Endrin ketone | 3.6 | |
| 7421-93-4Endrin aldehyde | 3.6 | U |
| 5103-71-9alpha-Chlordane | 1.8 | U |
| 5103-74-2gamma-Chlordane | 1.8 | U |
| 8001-35-2Toxaphene | 180 | U |
| 12674-11-2Aroclor-1016 | 36 | U |
| 11104-28-2Aroclor-1221 | 73 | U |
| 11141-16-5Aroclor-1232 | 36 | U |
| 53469-21-9Aroclor-1242 | 36 | Ŭ |
| 12672-29-6Aroclor-1248 | 36 | U |
| 11097-69-1Aroclor-1254 | 36 | U |
| 11096-82-5Aroclor-1260 | 36 | U |
| | | |

FORM I PEST

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EPA SAMPLE NO.

JM197

Lab Name: COMPUCHEM ENV. CORP.

Contract: 68D50009

Case No.: 25253 SAS No.:

SDG No.: JM166

Matrix: (soil/water) SOIL

Lab Sample ID: 835283

Sample wt/vol: 30.2 (q/mL) G

Lab Code: COMPU

Lab File ID:

% Moisture: 16 decanted: (Y/N) N

Date Received: 12/21/96

Extraction: (SepF/Cont/Sonc) SONC

Date Extracted:12/23/96

Concentrated Extract Volume: 5000(uL)

Date Analyzed: 01/02/97

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.0

Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:

CAS NO.

COMPOUND

(ug/L or ug/Kg) UG/KG

Q

| 319-84-6alpha-BHC | 2.0 U |
|-----------------------------|------------------|
| 319-85-7beta-BHC | 2.0 U |
| 319-86-8delta-BHC | 2.0 U |
| 58-89-9gamma-BHC (Lindane) | 0.063 Jp |
| 76-44-8Heptachlor | 0.26 5 |
| 309-00-2Aldrin | 2.0 Ū |
| 1024-57-3Heptachlor epoxide | 2.0 U |
| 959-98-8Endosulfan I | 2.0 0 |
| 60-57-1Dieldrin | 0.62 Jp |
| 72-55-94,4'-DDE | 3.9 0 |
| 72-20-8Endrin | 0.85J |
| 33213-65-9Endosulfan II | 3.9 U |
| 72-54-84;4'-DDD | |
| 1031-07-8Endosulfan sulfate | 0.45 JZ 3.9 Ú |
| 50-29-34,4'-DDT | 0.69 JÉ |
| 72-43-5Methoxychlor | 0.58 FB 4 |
| 53494-70-5Endrin ketone | 3.9 U |
| 7421-93-4Endrin aldehyde | 3.9 U |
| 5103-71-9alpha-Chlordane | 0.074 JY |
| 5103-74-2gamma-Chlordane | 0.12 JY |
| 8001-35-2Toxaphene | 200 U |
| 12674-11-2Aroclor-1016 | 39 U |
| 11104-28-2Aroclor-1221 | 79 U |
| 11141-16-5Aroclor-1232 | 39 U |
| 53469-21-9Aroclor-1242 | 39 0 |
| 12672-29-6Aroclor-1248 | 39 0 |
| 11097-69-1Aroclor-1254 | 39 U |
| 11096-82-5Aroclor-1260 | 39 U |
| | |

EPA SAMPLE NO.

JM196

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

SDG No.: JM166 Lab Code: COMPU Case No.: 25253 SAS No.:

Matrix: (soil/water) SOIL Lab Sample ID: 835282

Sample wt/vol: 30.2 (g/mL) G Lab File ID:

% Moisture: 11 decanted: (Y/N) N Date Received: 12/21/96

Extraction: (SepF/Cont/Sonc) SONC Date Extracted:12/23/96

Date Analyzed: 01/02/97 Concentrated Extract Volume: 5000 (uL)

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.6 Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:

FORM I PEST

EPA SAMPLE NO.

JM195

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.:

SDG No.: JM166

Matrix: (soil/water) SOIL

Lab Sample ID: 835281

Sample wt/vol: 30.1 (q/mL) G

Lab File ID:

% Moisture: 11 decanted: (Y/N) N Date Received: 12/21/96

Extraction: (SepF/Cont/Sonc) SONC

Date Extracted:12/23/96

Concentrated Extract Volume: 5000 (uL)

Date Analyzed: 01/02/97

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup:

(Y/N) Y pH: 6.2 Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:

CAS NO.

COMPOUND

(ug/L or ug/Kg) UG/KG

0 319-84-6-----alpha-BHC 1.9 0 319-85-7-----beta-BHC 1.9 U 319-86-8-----delta-BHC 1.9|U 58-89-9-----gamma-BHC (Lindane) 1.9 U 76-44-8-----Heptachlor 1.9 U 309-00-2-----Aldrin 1.9 U 1024-57-3-----Heptachlor epoxide 1.9 U 1.9 U 959-98-8-----Endosulfan I 3.7 U 60-57-1-----Dieldrin 3.7 ปี 72-55-9-----4,4'-DDE 3.7 0 72-20-8-----Endrin 33213-65-9----Endosulfan II 3.7 U 72-54-8-----4,4'-DDD 3.7 U 3.7 U 1031-07-8-----Endosulfan sulfate 3.7 U 50-29-3-----4,4'-DDT 0.85 JB 72-43-5-----Methoxychlor 53494-70-5----Endrin ketone 3.7 T 3.7 U 7421-93-4----Endrin aldehyde 1.9 U 5103-71-9----alpha-Chlordane 5103-74-2----gamma-Chlordane 1.9 U 8001-35-2----Toxaphene. 190 U 12674-11-2----Aroclor-1016 37 U 11104-28-2----Aroclor-1221 75 U 11141-16-5-----Aroclor-1232 37 U 37 U 53469-21-9----Aroclor-1242 37 U 12672-29-6-----Aroclor-1248 11097-69-1-----Aroclor-1254 37 17 11096-82-5----Aroclor-1260 37 l U

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JM194

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM166

Matrix: (soil/water) SOIL Lab Sample ID: 835280

Sample wt/vol: 30.2 (g/mL) G Lab File ID:

% Moisture: 21 decanted: (Y/N) N Date Received: 12/21/96

Extraction: (SepF/Cont/Sonc) SONC Date Extracted:12/23/96

Concentrated Extract Volume: 5000(uL) Date Analyzed: 01/01/97

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.7 Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/KG Q

| and an of the DIG | | 77 | _ |
|-----------------------------|------|------|-----|
| 319-84-6alpha-BHC | 2.1 | Į. | |
| 319-85-7beta-BHC | 2.1 | | |
| 319-86-8delta-BHC | 2.1 | | |
| 58-89-9gamma-BHC (Lindane) | 2.1 | • | - 1 |
| 76-44-8Heptachlor | 2.1 | | ļ |
| 309-00-2Aldrin | 2.1 | ı | 1 |
| 1024-57-3Heptachlor epoxide | 2.1 | | 1 |
| 959-98-8Endosulfan I | 2.1 | | |
| 60-57-1Dieldrin | 4.2 | | - 1 |
| 72-55-94,4'-DDE | 0.41 | l . | |
| 72-20-8Endrin | 4.2 | | İ |
| 33213-65-9Endosulfan II | 4.2 | U | |
| 72-54-84,4'-DDD | 4.2 | U | |
| 1031-07-8Endosulfan sulfate | 0.35 | उन्ह | 9 |
| 50-29-34,4'-DDT | 0.69 | JZ | Į |
| 72-43-5Methoxychlor | 0.79 | JB' | U |
| 53494-70-5Endrin ketone | 4.2 | U | |
| 7421-93-4Endrin aldehyde | 4.2 | U . | |
| 5103-71-9alpha-Chlordane | 0.14 | JF | - 1 |
| 5103-74-2gamma-Chlordane | 2.1 | | |
| 8001-35-2Toxaphene | 210 | | |
| 12674-11-2Aroclor-1016 | 42 | | - 1 |
| 11104-28-2Aroclor-1221 | 84 | | - |
| 11141-16-5Aroclor-1232 | 42 | | 1 |
| 53469-21-9Aroclor-1242 | 42 | | - } |
| 12672-29-6Aroclor-1248 | 42 | | - 1 |
| 11097-69-1Aroclor-1254 | 42 | ï | |
| 11096-82-5Aroclor-1260 | 42 | | |
| 1100001 | | | _ |

Q

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU

Case No.: 25253 SAS No.:

SDG No.: JM166

Matrix: (soil/water) SOIL

Lab Sample ID: 835279

Sample wt/vol:

30.3 (g/mL) G

Lab File ID:

% Moisture: 11

decanted: (Y/N) N

Date Received: 12/21/96

Extraction: (SepF/Cont/Sonc) SONC

Date Extracted:12/23/96

Concentrated Extract Volume: 5000 (uL)

Date Analyzed: 01/01/97

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.1

Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:

CAS NO.

COMPOUND

(ug/L or ug/Kg) UG/KG

| , | |
|-----------------------------|-----------|
| 319-84-6alpha-BHC | 1.9 U |
| 319-85-7beta-BHC | 1.9 0 |
| 319-86-8delta-BHC | 0.16 32 |
| 58-89-9gamma-BHC (Lindane) | |
| 76-44-8Heptachlor | 1.9 0 |
| 309-00-2Aldrin | 1.9 U |
| 1024-57-3Heptachlor epoxide | |
| 959-98-8Endosulfan I | 1.9 U |
| 60-57-1Dieldrin | -\ 3.7\U |
| 72-55-94,4'-DDE | - 3.7 U |
| 72-20-8Endrin | -) 3.7 U |
| 33213-65-9Endosulfan II | 3.7 U |
| 72-54-84,4'-DDD | _ 3.7 U |
| 1031-07-8Endosulfan sulfate | |
| 50-29-34,4'-DDT | 3.7 U |
| 72-43-5Methoxychlor | |
| 53494-70-5Endrin ketone | _ 3.7 U |
| 7421-93-4Endrin aldehyde | - 3.7 U |
| 5103-71-9alpha-Chlordane | 1.9 U |
| 5103-74-2gamma-Chlordane | _ 1.9 U |
| 8001-35-2Toxaphene | |
| 12674-11-2Aroclor-1016 | |
| 11104-28-2Aroclor-1221 | - · 74 U |
| 11141-16-5Aroclor-1232 | -\ |
| 53469-21-9Aroclor-1242 | _ 37 U |
| 12672-29-6Aroclor-1248 | _ 37 U / |
| 11097-69-1Aroclor-1254 | - 26 J / |
| 11096-82-5Aroclor-1260 | _ 37 U |
| | |
| | |

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Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM166

Matrix: (soil/water) SOIL

Lab Sample ID: 835278

Sample wt/vol: 30.3 (g/mL) G Lab File ID:

% Moisture: 13 decanted: (Y/N) N Date Received: 12/21/96

Extraction: (SepF/Cont/Sonc) SONC Date Extracted:12/23/96

Concentrated Extract Volume: 5000(uL)

Date Analyzed: 12/31/96

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.0

Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/KG

| 319-84-6alpha-BHC 1.9 U 319-85-7beta-BHC 1.9 U 319-86-8delta-BHC 1.9 U 58-89-9gamma-BHC (Lindane) 1.9 U 76-44-8Heptachlor 1.9 U 309-00-2Aldrin 1.9 U 1024-57-3Heptachlor epoxide 1.9 U 959-98-8 | | , , , , , , , , , , , , , , , , , , , , | -5,5,, | * |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|--------|
| 1 11097-69-1Arocior-1254 | 319-85-7 319-86-8 58-89-9 76-44-8 309-00-2 1024-57-3 959-98-8 72-55-9 72-55-9 72-54-8 1031-07-8 50-29-3 7421-93-4 5103-71-9 5103-74-2 8001-35-2 1104-28-2 11141-16-5 53469-21-9 | beta-BHCdelta-BHCgamma-BHC (Lindane)HeptachlorAldrinHeptachlor epoxideEndosulfan IDieldrin4,4'-DDEEndrinEndosulfan II4,4'-DDDEndosulfan sulfate4,4'-DDTMethoxychlorEndrin ketoneEndrin aldehydealpha-Chlordanegamma-Chlordanegamma-ChlordaneToxapheneAroclor-1212Aroclor-1242Aroclor-1248 | 1.9 1.9 1.9 1.9 1.9 1.9 1.9 1.9 3.8 3.8 3.8 3.8 3.8 3.8 3.8 3.8 3.8 3.8 | |
| 11096-82-5Aroclor-1260 38 U | 12672-29-6 11097-69-1 | Aroclor-1248 Aroclor-1254 | 38 | U U |

OLM03.0

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM166

Matrix: (soil/water) SOIL

Lab Sample ID: 835277

Sample wt/vol:

30.1 (g/mL) G

Lab File ID:

% Moisture: 17

decanted: (Y/N) N

Date Received: 12/21/96

Extraction: (SepF/Cont/Sonc) SONC

Date Extracted:12/23/96

Concentrated Extract Volume: 5000(uL) Date Analyzed: 12/31/96

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.7

Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:

CAS NO.

COMPOUND

(ug/L or ug/Kg) UG/KG

Q

| C. 1.0. | (45) | , 2 01 43,143, | 00,110 | × |
|---------------|---------------------|----------------|--------|-------|
| 319-84-6 | alpha-BHC | | . 2.0 | TI |
| 319-85-7 | | | 2.0 | 1 |
| | delta-BHC | <u>-</u> | 2.0 | |
| | gamma-BHC (Lindane) | | 2.0 | 1 |
| | Heptachlor | | 2.0 | |
| 309-00-2 | | | 2.0 | 1 |
| | Heptachlor epoxide | | 2.0 | 1 |
| | Endosulfan I | | 2.0 | |
| 60-57-1 | | | 4.0 | 1 |
| 72-55-9 | | | 4.0 | |
| 72-20-8 | | | 4.0 | 1 |
| | Endosulfan II | | 4.0 | 1 |
| 72-54-8 | | | 4.0 | |
| | Endosulfan sulfate | | 4.0 | |
| 50-29-3 | | | 4.0 | U ,, |
| 72-43-5 | Methoxychlor | | 0.55 | JPB Y |
| | Endrin ketone | | 4.0 | U |
| 7421-93-4 | Endrin aldehyde | | 4.0 | U |
| | alpha-Chlordane | | 2.0 | U |
| 5103-74-2 | gamma-Chlordane | | 2.0 | U |
| 8001-35-2 | Toxaphene | | 200 | U |
| 12674-11-2 | Aroclor-1016 | | 40 | U |
| 11104-28-2 | Aroclor-1221 | | 80 | U |
| 11141-16-5 | Aroclor-1232 | | . 40 | U |
| | Aroclor-1242 | | 40 | U |
| 12672-29-6 | Aroclor-1248 | | . 40 | U |
| 11097-69-1 | Aroclor-1254 | | 40 | U |
| 11096-82-5 | Aroclor-1260 | | 40 | ប |
| · | | | | |

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM166

Matrix: (soil/water) SOIL

Lab Sample ID: 835276

Sample wt/vol: 30.2 (g/mL) G Lab File ID:

% Moisture: 12 decanted: (Y/N) N Date Received: 12/21/96

Extraction: (SepF/Cont/Sonc) SONC Date Extracted:12/23/96

Concentrated Extract Volume: 5000(uL) Date Analyzed: 01/03/97

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.0 Sulfur Cleanup: (Y/N) N

CONCENTED ATTOM INTERC

| | | | CONCENTRATION UNITS: | |
|---------|---|----------|-----------------------|---|
| CAS NO. | ٠ | COMPOUND | (ug/L or ug/Kg) UG/KG | Q |

JM177

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

SDG No.: JM166

Lab Code: COMPU

Case No.: 25253 SAS No.:

Matrix: (soil/water) SOIL

Lab Sample ID: 835275

Sample wt/vol: 30.1 (g/mL) G

Lab File ID:

% Moisture: 9 decanted: (Y/N) N

Date Received: 12/21/96

Extraction: (SepF/Cont/Sonc) SONC

Date Extracted:12/23/96

Concentrated Extract Volume: 5000(uL)

Date Analyzed: 01/03/97

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.1

Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:

CAS NO. COMPOUND

(ug/L or ug/Kg) UG/KG

0

| CAS NO. | (dg/H OI dg | ,, 1.5, 00, 10 | ~ |
|------------|---------------------|----------------|---|
| 319-84-6 | alpha-RHC | 1.9 U | |
| 319-85-7 | beta-BHC | 1.9 0 | |
| | delta-BHC | 1.9 U | |
| | gamma-BHC (Lindane) | 1.9 U | |
| | Heptachlor | 1.9 U | |
| 309-00-2 | | 1.9 0 | |
| | Heptachlor epoxide | 1.9 0 | |
| | Endosulfan I | 1.9 U | |
| 60-57-1 | | 3.6 U | |
| 72-55-9 | | 1.6 J | |
| 72-20-8 | | 3.6 0 | • |
| 33213-65-9 | Endosulfan II | 3.6 U | |
| 72-54-8 | | 3.6 U | |
| | Endosulfan sulfate | 3.6 U | |
| 50-29-3 | | 1.1 3 | |
| | Methoxychlor | 0.47 | |
| | Endrin ketone | 3.6 U | |
| | Endrin aldehyde | 3.6 U | |
| | alpha-Chlordane | 0.13 7 | |
| | gamma-Chlordane | 1.9 บั | |
| 8001-35-2 | | 190 U | |
| | Aroclor-1016 | 36 U | |
| | Aroclor-1221 | 73 U | |
| | Aroclor-1232 | 36 U | |
| | Aroclor-1242 | 36 U | |
| | Aroclor-1248 | 36 U | • |
| | Aroclor-1254 | 36 0 | |
| | Aroclor-1260 | 36 U | |
| | | | |

and environment

EPA SAMPLE NO.

JM176

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

CAS NO.

11096-82-5-----Aroclor-1260

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM166

Lab Sample ID: 835274 Matrix: (soil/water) SOIL

Lab File ID: Sample wt/vol: 30.2 (g/mL) G

% Moisture: 15 decanted: (Y/N) N Date Received: 12/21/96

Extraction: (SepF/Cont/Sonc) SONC Date Extracted:12/23/96

Concentrated Extract Volume: 5000(uL) Date Analyzed: 01/03/97

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.2 Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG Q

2.0 U 319-84-6-----alpha-BHC 319-85-7-----beta-BHC____ 2.0 U 2.0 0 319-86-8-----delta-BHC 58-89-9-----gamma-BHC (Lindane) 2.0 U 2.0 U 76-44-8-----Heptachlor 2.0 U 309-00-2-----Aldrin 1024-57-3-----Heptachlor epoxide 2.0 U 959-98-8-----Endosulfan I 2.0 U 60-57-1------Dieldrin 3.8 U 72-55-9-----4,4'-DDE 3.8 U 3.8 U 72-20-S-----Endrin 33213-65-9-----Endosulian II____ 3.8 U 3.8 U 72-54-8-----4,4'-DDD 1031-07-8-----Endosulfan sulfate 3.8 U 3.8 U 50-29-3----4,4'-DDT 0.47 0003 4 72-43-5-----Methoxychlor 53494-70-5-----Endrin ketone 3.8 U 7421-93-4----Endrin aldehyde 3.8 U 5103-71-9-----alpha-Chlordane 2.0 U 5103-74-2----gamma-Chlordane 2.0 U 8001-35-2-----Toxaphene 200 U 12674-11-2-----Aroclor-1016 38 U 11104-28-2----Aroclor-1221 78 U 11141-16-5-----Aroclor-1232 38 U 38 U 53469-21-9----Aroclor-1242 12672-29-6-----Aroclor-1248 38 U 11097-69-1-----Aroclor-1254 38 U

FORM I PEST

38 U

JM175

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.:

SDG No.: JM166

Matrix: (soil/water) SOIL

Lab Sample ID: 835273

Sample wt/vol: 30.1 (q/mL) G

Lab File ID:

% Moisture: 15 decanted: (Y/N) N Date Received: 12/21/96

Extraction: (SepF/Cont/Sonc) SONC

Date Extracted:12/23/96

Concentrated Extract Volume: 5000(uL)

Date Analyzed: 01/03/97

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y

pH: 6.9 Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:

CAS NO.

COMPOUND

(ug/L or ug/Kg) UG/KG

0

| 319-84-6alpha-BHC 319-85-7beta-BHC 319-86-8delta-BHC 58-89-9gamma-BHC (Lindane) 76-44-8Heptachlor 309-00-2Aldrin 1024-57-3Heptachlor epoxide | NG | Q |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|
| 959-98-8Endosulfan I 60-57-1Dieldrin 72-55-94,4'-DDE 72-20-8Endrin 33213-65-9Endosulfan II 72-54-84,4'-DDD 1031-07-8Endosulfan sulfate 50-29-34,4'-DDT 72-43-5Methoxychlor 53494-70-5Endrin ketone 7421-93-4Endrin aldehyde 5103-71-9alpha-Chlordane 5103-74-2gamma-Chlordane 8001-35-2Toxaphene 12674-11-2Aroclor-1212 11141-16-5Aroclor-1232 53469-21-9Aroclor-1242 12672-29-6Aroclor-1248 | 0.27 2.0 0.10 2.0 2.0 2.0 0.22 2.0 1.1 0.29 0.74 3.9 0.31 3.9 1.1 20 3.9 2.0 2.0 2.0 3.9 3.9 2.0 2.0 3.9 3.9 2.0 3.9 3.9 3.9 3.9 3.9 3.9 3.9 3.9 3.9 3.9 | ממממממממממנחל מל אל אל מל מעממממממממ מל אל אל אל אל אל אל אל אל אל אל אל אל אל |

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

CAS NO. COMPOUND

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM166

Matrix: (soil/water) SOIL Lab Sample ID: 835272

Sample wt/vol: 30.2 (g/mL) G Lab File ID:

% Moisture: 15 decanted: (Y/N) N Date Received: 12/21/96

Extraction: (SepF/Cont/Sonc) SONC Date Extracted:12/23/96

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 01/03/97

Dilution Factor: 1.0 Injection Volume: 2.0(uL)

GPC Cleanup: (Y/N) Y pH: 7.0 Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG Q

| ·· | |
|--------------------------------------------------|----------------|
| 319-84-6alpha-BHC | 2.0 U |
| 319-85-7beta-BHC 319-86-8delta-BHC | 2.0 U 2.0 U |
| 58-89-9gamma-BHC (Lindane) | - 2.0 U |
| 76-44-8Heptachlor | - 2.0 U |
| 309-00-2Aldrin | 2.0 U |
| 1024-57-3Heptachlor epoxide | |
| 959-98-SEndosulfan I | _ 2.0 U |
| 60-57-1Dieldrin | 3.8 U |
| 72-55-94,4'-DDE | _ 3.8 U |
| 72-20-8Endrin | 3.8 U |
| 33213-65-9Endosulfan II | _ 3.8 U |
| 72-54-84,4'-DDD | 3.8 U |
| 1031-07-SEndosulfan sulfate | |
| 50-29-34,4'-DDT | 3.8 U |
| 72-43-5Nethoxychlor | 0.93 TPB 4 |
| 53494-70-5Endrin ketone | 3.8 U |
| 7421-93-4Endrin aldehyde | 3.8 U |
| 5103-71-9alpha-Chlordane | 2.0 U |
| 5103-74-2gamma-Chlordane | 2.0 U |
| 8001-35-2Toxaphene | 200 U |
| 12674-11-2Aroclor-1016 | 38 U |
| 11104-28-2Aroclor-1221 | 78 U |
| 11141-16-5Aroclor-1232 53469-21-9Aroclor-1242 | 38 U 38 U |
| 12672-29-6Aroclor-1248 | - 38 U |
| 11097-69-1Aroclor-1248 | - 38 U |
| 11096-82-5Aroclor-1260 | - 38 U |
| 11030-07-21-1WHOCIOI-1700 | - 33 0 |
| | |

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM166

Matrix: (soil/water) SOIL

Lab Sample ID: 835271

Sample wt/vol: $30.1 (g/\pi L) G$

Lab File ID:

% Moisture: 13 decanted: (Y/N) N

Date Received: 12/21/96

Extraction: (SepF/Cont/Sonc) SONC

Date Extracted:12/23/96

Concentrated Extract Volume: 5000(uL)

Date Analyzed: 01/03/97

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

CAS NO. COMPOUND

GPC Cleanup: (Y/N) Y pH: 7.5 Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG Q

| 319-84-6 | 1.9 U 1.9 U 1.9 U 1.9 U 1.9 U 1.9 U 1.9 U 1.9 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U 3.8 U |
|----------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 5103-71-9alpha-Chlordane 5103-74-2gamma-Chlordane | 1.9U |
| 12674-11-2Aroclor-1016 | 38 U 77 U |
| 11141-16-5Aroclor-1232 53469-21-9Aroclor-1242 12672-29-6Aroclor-1248 | 38 U 38 U 38 U |
| 11097-69-1Aroclor-1254 | 38 U |

FORM I PEST

OLM03.0 ecology and environment ecology and environment [1]

38 U

11096-82-5----Aroclor-1260

EPA SAMPLE NO.

JM172

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM166

Matrix: (soil/water) SOIL

Lab Sample ID: 835270

Sample wt/vol: 30.2 (g/mL) G

Lab File ID:

% Moisture: 9 decanted: (Y/N) N

Date Received: 12/21/96

Extraction: (SepF/Cont/Sonc) SONC

Date Extracted:12/23/96

Concentrated Extract Volume: 5000 (uL)

Date Analyzed: 01/03/97

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y. pH: 6.8 Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG CAS NO. COMPOUND

| 76-44-8 309-00-2 1024-57-3 | beta-BHC delta-BHC gamma-BHC (Lindane) Heptachlor | 1.8 1.8 1.8 1.8 1.8 1.8 | U U U U U U |
|----------------------------------|------------------------------------------------------------|----------------------------------------|----------------------------|
| 60-57-1 | | 3.6 | |
| 72-55-9 | | 3.6 | |
| 72-20-8 | | 3.6 | |
| T | -Endosulfan II | 3.6 | |
| 72-54-8 | | 3.6 | |
| | -Endosulfan sulfate | 3.6 | |
| 50-29-3 | | 3.6 | |
| 72-43-5 | | 0.85 | |
| 53494-70-5 | | 3.6 | |
| | -Endrin aldehyde | 3.6 | |
| | -alpha-Chlordane | 1.8 | |
| | -gamma-Chlordane | 1.8 | 1 |
| 8001-35-2 | | 180 | |
| 12574-11-2 | | 36 | 1 |
| 11104-28-2 | | 73 | ı |
| 11141-16-5 | | 36 | |
| 53469-21-9 | | 36 | |
| 12672-29-6 | | 36 | 1 |
| 11097-69-1 | | 36 | 1 |
| 11096-82-5 | -Arocior-1260 | 36 | U |

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.:

SDG No.: JM166

Matrix: (soil/water) SOIL

Lab Sample ID: 835269

Sample wt/vol:

30.1 (g/mL) G

Lab File ID:

% Moisture: 11

decanted: (Y/N) N Date Received: 12/21/96

Extraction: (SepF/Cont/Sonc) SONC

Date Extracted:12/23/96

Concentrated Extract Volume: 5000(uL)

Date Analyzed: 01/02/97

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y

pH: 6.5

Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG CAS NO. COMPOUND

0

| 319-84-6 | 1.9 UU 1.9 UU 1.9 UU 1.9 UU 1.9 UU 1.9 UU 1.9 UU 1.9 UU 1.9 UU 1.9 UU 1.9 UU 1.9 UU 1.9 UU 1.9 UU 1.9 UU 1.9 UU 1.9 UU 1.9 UU 1.9 UU 1.9 1.9 UU 1.9 1.9 UU 1.9 1.9 UU 1.9 1.9 UU 1.9 1.9 UU 1.9 1.9 UU 1.9 1.9 UU 1.9 1.9 UU 1.9 1.9 UU 1.9 1.9 UU 1.9 1.9 UU 1.9 1.9 UU 1.9 1.9 UU 1.9 1.9 UU 1.9 1.9 UU 1.9 1.9 UU 1.9 1.9 UU 1.9 1.9 UU 1.9 1.9 UU 1.9 1.9 UU 1.9 1.9 UU 1.9 1.9 UU 1.9 1.9 UU 1.9 1.9 UU 1.9 1.9 UU 1.9 1.9 UU 1.9 1.9 UU 1.9 1.9 UU 1.9 1.9 UU 1.9 1.9 UU 1.9 1.9 UU 1.9 1.9 UU 1.9 1.9 UU 1.9 1.9 UU 1.9 1.9 UU 1.9 1.9 UU 1.9 1.9 UU 1.9 1.9 UU 1.9 1.9 UU 1.9 1.9 UU 1.9 1.9 UU 1.9 1.9 UU 1.9 1.9 UU 1.9 1.9 UU 1.9 1.9 UU 1.9 1.9 UU 1.9 1.9 UU 1.9 1.9 UU 1.9 1.9 UU 1.9 1.9 UU 1.9 1.9 UU 1.9 1.9 UU 1.9 1.9 UU 1.9 1.9 UU 1.9 1.9 UU 1.9 1.9 UU 1.9 1.9 UU 1.9 1.9 UU 1.9 1.9 UU 1.9 1.9 UU 1.9 1.9 UU 1.9 1.9 UU 1.9 1.9 UU 1.9 1.9 UU 1.9 1.9 UU 1.9 1.9 UU 1.9 1.9 UU 1.9 1.9 UU 1.9 1.9 UU 1.9 1.9 UU 1.9 1.9 UU 1.9 1.9 UU 1.9 1.9 UU 1.9 1.9 UU 1.9 1.9 UU 1.9 1.9 UU 1.9 1.9 UU 1.9 1.9 UU 1.9 1.9 UU 1.9 1.9 UU 1.9 1.9 UU 1.9 1.9 UU 1.9 1.9 UU 1.9 1.9 UU 1.9 1.9 UU 1.9 1.9 UU 1.9 1.9 UU 1.9 1.9 UU 1.9 1.9 UU 1.9 1.9 UU 1.9 1.9 UU 1.9 1.9 UU 1.9 1.9 UU 1.9 1.9 UU 1.9 1.9 UU 1.9 1.9 UU 1.9 1.9 UU 1.9 1.9 UU 1.9 1.9 1.9 UU 1.9 1.9 1.9 UU 1.9 1.9 1.9 UU 1.9 1.9 1.9 UU 1.9 1.9 1.9 1.9 UU 1.9 1.9 1.9 1.9 1.9 1.9 1.9 1.9 1.9 1.9 | الم |
|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
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FORM I PEST

OLMO3.0

EPA SAMPLE NO.

JM170

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM166

Matrix: (soil/water) SOIL

Lab Sample ID: 835268

Sample wt/vol: 30.3 (g/mL) G Lab File ID:

% Moisture: 9 decanted: (Y/N) N Date Received: 12/21/96

Extraction: (SepF/Cont/Sonc) SONC Date Extracted:12/23/96

Concentrated Extract Volume: 5000(uL)

Date Analyzed: 01/02/97

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.9 Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/KG Q

JM168

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.:

SDG No.: JM166

Matrix: (soil/water) SOIL

Lab Sample ID: 835267

Sample wt/vol:

30.1 (q/mL) G

Lab File ID:

% Moisture: 9

decanted: (Y/N) N

Date Received: 12/21/96

Extraction: (SepF/Cont/Sonc) SONC

Date Extracted:12/23/96

Concentrated Extract Volume: 5000 (uL)

Date Analyzed: 01/02/97

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.0

Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG Q

CAS NO.

COMPOUND

FORM I PEST

OLM03.0 ecology and environment

JM2 67

Lab Name: CONFUCHEM ENV. CORP. . Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM165

Matrix: (soil/water) SOIL Lab Sample ID: 835266

Sample wt/vol: 30.2 (g/mL) G Lab File ID:

% Moisture: 9 decanted: (Y/N) N Date Received: 12/21/96

Extraction: (SepF/Cont/Sonc) SONC Date Extracted:12/23/96

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 01/02/97

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.1 Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

| 11097-69-1Aroclor-1254 11096-82-5Aroclor-1260 | 76-44-8 309-00-2 1024-57-3 959-98-8 72-55-9 72-20-8 33213-65-9 72-54-8 1031-07-8 50-29-3 72-43-5 53494-70-5 5103-74-2 5103-74-2 1104-28-2 11104-28-2 11104-28-2 1141-16-5 53469-21-9 11097-69-1 | beta-BHCdelta-BHCgamma-BHC (Lindane)HeptachlorAldrinHeptachlor epoxideEndosulfan IDieldrin4,4'-DDEEndrin4,4'-DDDEndosulfan sulfate4,4'-DDTNethoxychlorEndrin ketoneEndrin aldehydealpha-Chlordanegamma-ChlordaneToxapheneAroclor-1212Aroclor-1242Aroclor-1248Aroclor-1254 | 3.6 3.6 1.8 1.8 180 36 73 36 36 36 | विवत्वववववववववववववववववववववववववववववववववव | |
|--------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------|-----------------------------------------|--|
|--------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------|-----------------------------------------|--|

JM166

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Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM166

Matrix: (soil/water) SOIL

Lab Sample ID: 835257

Sample wt/vol:

30.2 (g/mL) G

Lab File ID:

% Moisture: 12 decanted: (Y/N) N

Date Received: 12/21/96

Extraction: (SepF/Cont/Sonc) SONC

Date Extracted:12/23/96

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 01/02/97

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.7

Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

CAS NO.

COMPOUND

| _ | 319-84-6alpha-BHC | 1.9 | ับ | |
|----------|-----------------------------|------|-------|-----|
| | 319-85-7beta-BHC | 1.9 | U | |
| _ | 319-86-8delta-BHC | 1.9 | U | |
| | 58-89-9gamma-BHC (Lindane) | 1.9 | U | |
| ~ | 76-44-8Heptachlor | 1.9 | U | |
| _ | 309-00-2Aldrin | 1.9 | U | ĺ |
| _ | 1024-57-3Heptachlor epoxide | 1.9 | U | l |
| 1 | 959-98-8Endosulfan I | 1.9 | U | 1 |
| _ | 60-57-1Dieldrin | 3.7 | ָ ַ ע | ĺ |
| _ | 72-55-94,4'-DDE | 3.7 | L I | i |
| Gl | 72-20-8Endrin | 3.7 | | _ ا |
| _ | 33213-65-9Endosulfan II | 3.7 | | Ó |
| | 72-54-84,4'-DDD | 0.13 | JZ] | ıΧ |
| | 1031-07-SEndosulfan sulfate | 3.7 | | |
| | 50-29-34,4'-DDT | 3.7 | | |
| ŀ | 72-43-5Methoxychlor | | JPB U | |
| - | 53494-70-5Endrin ketone | 3.7 | | ŀ |
| \dashv | 7421-93-4Endrin aldehyde | 3.7 | | l |
| | 5103-71-9alpha-Chlordane | 1.9 | | l |
| \dashv | 5103-74-2gamma-Chlordane | 1.9 | | |
| | 8001-35-2Toxaphene | 190 | | ı |
| | 12674-11-2Aroclor-1016 | 37 | | ļ |
| | 11104-28-2Aroclor-1221 | 76 | | |
| | 11141-16-5Aroclor-1232 | . 37 | I | |
| | 53469-21-9Aroclor-1242 | . 37 | | |
| } | 12672-29-6Aroclor-1248 | 37 | | i |
| 0 | 11097-69-1Aroclor-1254 | 37 | Ŭ | ł |

37 U

11096-82-5----Aroclor-1260

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

JM198

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM166

Matrix: (soil/water) SOIL

Lab Sample ID: 835284

Sample wt/vol: 30.1 (g/mL) g Lab File ID: GH035284A64

Level: (low/med) LOW

Date Received: 12/21/96

% Moisture: 9 decanted: (Y/N) N

Date Extracted:12/23/96

Concentrated Extract Volume: 500 (uL)

Date Analyzed: 12/30/96

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.9

Number TICs found: 7

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|------------------------------------------------|------------------------------------------------------------------------------------------------|-------------------------------------------------|-----------------------------------|-------------------------------------|
| 1. 2. 3. 822-86-6 4. 5. | ALDOL (BC) LNENOWN (BC) CYCLOHEXANE, 1,2 DICHORO, UNKNOWN CARBOXYLIC ACID UNKNOWN UNKNOWN | 4.41 4.64 7.38 14.83 17.45 18.06 | 6300 320 -130 110 210 | JAB R JB V NJB V JN J V |
| 7. 8. 9. 10. | UNKNOMN | 23.00 | 190 | J√ |
| 13. 14. 15. 15. | | | | |
| 18. 19. 20. 21. 22. 23. | | | | |
| 24. 25. 26. 27. 23. | | | | |
| 30 | | | | |

Lab Name: COMPUCHEM ENV. CORP.

Contract: 68D50009

Lab Code: COMPU

Case No.: 25253 SAS No.:

SDG No.: JM166

Matrix: (soil/water) SOIL

Lab Sample ID: 835284

Sample wt/vol: 30.1 (g/mL) g

Lab File ID:

GH035284A64

Level: (low/med)

Date Received: 12/21/96

% Moisture: 9 decanted: (Y/N) N

Date Extracted: 12/23/96

Concentrated Extract Volume:

500 (址)

Date Analyzed: 12/30/96

Injection Volume:

CAS NO.

2.0(uL)

COMPOUND

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y

pH: 6.9

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

Q

| | 2,4-Dinitrophenol | 910 | |
|----------|-----------------------------|-------|----|
| | 4-Nitrophenol | 910 | |
| | Dibenzofuran | 360 | |
| | 2,4-Dinitrotoluene | 360 | |
| | Diethylphthalate | 360 | |
| | 4-Chlorophenyl-phenylether_ | 360 | |
| | Fluorene | 360 | |
| | 4-Nitroaniline | 910 | |
| | 4,6-Dinitro-2-methylphenol | 910 | |
| 86-30-6 | N-nitrosodiphenylamine (1) | . 360 | U |
| 101-55-3 | 4-Bromophenyl-phenylether | 360 | U |
| 118-74-1 | Hexachlorobenzene | 360 | U |
| 87-86-5 | Pentachlorophenol | 910 | U |
| 85-01-8 | Phenanthrene | 360 | U |
| 120-12-7 | Anthracene | 360 | .U |
| | Carbazole | 360 | U |
| 84-74-2 | Di-n-butylphthalate | 360 | U |
| 206-44-0 | Fluoranthene | 360 | บ |
| 129-00-0 | | 360 | U |
| 85-68-7 | Butylbenzylphthalate | 360 | U |
| 91-94-1 | 3,3'-Dichlorobenzidine | 360 | υJ |
| 56-55-3 | Benzo(a) anthracene | 360 | U |
| 218-01-9 | Chrysene | 360 | U |
| | bis(2-Ethylhexyl)phthalate | 76 | J. |
| 117-84-0 | Di-n-octylphthalate | 360 | U |
| 205-99-2 | Benzo(b)fluoranthene | 360 | U |
| | Benzo(k)fluoranthene | 360 | U |
| | Benzo(a)pyrene | 360 | U |
| | Indeno (1, 2, 3-cd) pyrene | 360 | L |
| | Dibenzo(a,h)anthracene | 360 | 1 |
| | Benzo(g,h,i)perylene | 360 | |

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM166

Matrix: (soil/water) SOIL

Lab Sample ID: 835284

Sample wt/vol: 30.1 (g/mL) g

Lab File ID: GH035284A64

Level: (low/med) LOW

Date Received: 12/21/96

% Moisture: 9 decanted: (Y/N) N Date Extracted:12/23/96

Concentrated Extract Volume: 500(uL)

Date Analyzed: 12/30/96

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.9

1F SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

JM197

| Lab | Name: | COMPUCHEM | ENV. | CORP. |
|-----|-------|-----------|------|-------|
| | | | | |

Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.:

SDG No.: JM166

Matrix: (soil/water) SOIL

Lab Sample ID: 835283

Sample wt/vol:

30.1 (g/mL) g

Lab File ID: GH035283A64

Level: (low/med)

LOW

Date Received: 12/21/96

% Moisture: 16 decanted: (Y/N) N

Date Extracted:12/23/96

Concentrated Extract Volume: 500 (uL)

Date Analyzed: 12/30/96

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.0

Number TICs found: 3 ...

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | |
|-------------------|---------------|-------|------------|-------|
| 1. 2. | ALDOL (BC) | 4.42 | | JAB R |
| 3. | UNKNOWN - | 17.45 | . 380 | |
| 5 | | | | |
| 8. | | · | | |
| 9. 10 | | | | |
| 12. | | | | |
| 13. 14. 15. | | | | |
| 16 17 | - | | | |
| 19. | | | | |
| 21. | | | | |
| 23. | | | | |
| 24. 25. | | | | |
| 26. 27. 28. | | | | |
| 29. 30. | | | | |
| | | | | |

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

JM197

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU | Case No.: 25253 SAS No.: SDG No.: JM166

Matrix: (soil/water) SOIL

Lab Sample ID: 835283

Sample wt/vol: 30.1 (g/mL) g Lab File ID: GH035283A64

Level: (low/med) LOW Date Received: 12/21/96

% Moisture: 16 decanted: (Y/N) N Date Extracted: 12/23/96

Concentrated Extract Volume: 500(uL), Date Analyzed: 12/30/96

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

CONCENTRATION UNITS:

GPC Cleanup: (Y/N) Y pH: 7.0

| CAS NO. | COMPOUND (ug/L or ug | /Kg) ug/Kg | Q |
|-----------|----------------------------|----------------|---------|
| 51-28-5 | 2,4-Dinitrophenol | 980 | _ עט |
| 100-02-7 | 4-Nitrophenol | 980 | U |
| | Dibenzofuran | 390 | U · |
| 121-14-2 | 2,4-Dinitrotoluene | 390 | U |
| 84-66-2 | Diethylphthalate | 390 | U |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 390 | U |
| 86-73-7 | Fluorene | 390 | U |
| | 4-Nitroaniline | 980 | Uυ |
| 534-52-1 | 4,6-Dinitro-2-methylphenol | 980 | U |
| 86-30-6 | N-nitrosodiphenylamine (1) | 390 | U |
| | 4-Bromophenyl-phenylether | 390 | U |
| | Hexachlorobenzene | 390 | U |
| 87-86-5 | Pentachlorophénol | 980 | U |
| 85-01-8 | Phenanthrene | 390 | U |
| | Anthracene | 390 | U |
| 86-74-8 | Carbazole | 390 | υ. |
| 84-74-2 | Di-n-butylphthalate | 390 | U |
| 206-44-0 | Fluoranthene | 390 | U |
| 129-00-0 | Pyrene - | . 390 | U |
| 85-68-7 | Butylbenzylphthalate | 390 | U |
| 91-94-1 | 3,3'-Dichlorobenzidine | 390 | W |
| 56-55-3 | Benzo(a) anthracene | 390 | U |
| 218-01-9 | Chrysene | 390 | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | 52 | Jν |
| 117-84-0 | Di-n-octylphthalate | 390 | U |
| 205-99-2 | Benzo(b) fluoranthene | 390 | U |
| 207-08-9 | Benzo(k)fluoranthene | 390 | U |
| 50-32-8 | Benzo(a)pyrene | 390 | U |
| | Indeno(1,2,3-cd)pyrene | 390 | U |
| | Dibenzo(a,h)anthracene | 390 | U |
| | Benzo(q,h,i)perylene | 390 | TT |

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

SDG No.: JM166 Lab Code: COMPU Case No.: 25253 SAS No.:

Matrix: (soil/water) SOIL Lab Sample ID: 835283

Sample wt/vol: 30.1 (g/mL) gLab File ID: GH035283A64

Level: (low/med) LOW Date Received: 12/21/96

% Moisture: 16 decanted: (Y/N) N Date Extracted:12/23/96

Concentrated Extract Volume: 500 (uL) Date Analyzed: 12/30/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.0

CONCENTRATION UNITS: CAS NO. Q COMPOUND (ug/L or ug/Kg) ug/Kg

| | <u> </u> | (43/2 01 49 | 71197 437119 | * | |
|---|----------|-------------------------------|--------------|----------|----|
| | 108-95-2 | -Phenol | 390 | על ב | 12 |
| | | -bis(2-Chloroethyl)ether | 390 | | 10 |
| | 95-57-8 | | 390 | | |
| i | | -1,3-Dichlorobenzene | 390 | 1 | |
| | | -1,4-Dichlorobenzene | 390 | 1 | |
| i | | -1,2-Dichlorobenzene | 390 | 1 | Î |
| Ì | 95-48-7 | | 390 | 1 | 1 |
| 1 | | -2,2'-oxybis(1-Chloropropane) | | 1 | |
| I | 106-44-5 | | 390 | | |
| 1 | | -N-Nitroso-di-n-propylamine | 390 | 1 | 1 |
| ļ | | -Hexachloroethane | 390 | | İ |
| 1 | 98-95-3 | | 390 | | |
| 1 | 78-59-1 | | 390 | 1 | |
| | 88-75-5 | | 390 | 1 | |
| Ì | | -2,4-Dimethylphenol | 390 | | |
| ł | | -bis(2-Chloroethoxy)methane | 390 | | 1 |
| - | | -2,4-Dichlorophenol | 390 | | |
| ļ | | -1,2,4-Trichlorobenzene | 390 | | 1 |
| I | 91-20-3 | | 390 | | |
| l | | -4-Chloroaniline | 390 | 1 | 1 |
| | \$7-68-3 | -Hexachlorobutadiene | 390 | ט | 1 |
| ŀ | | -4-Chloro-3-methylphenol | 390 | U | |
| ļ | | -2-Methylnaphthalene | 390 | υ | |
| l | 77-47-4 | -Hexachlorocyclopentadiene | 390 | U | 1 |
| 1 | \$8-06-2 | -2,4,6-Trichlorophenol | 390 | U | |
| Ì | 95-95-4 | -2,4,5-Trichlorophenol | 980 | U | |
| ĺ | 91-58-7 | -2-Chloronaphthalene | 390 | U | |
| ļ | 88-74-4 | | 980 | U | 1 |
| | | -Dimethylphthalate | 390 | U | |
| 1 | 208-96-8 | | 390 | | |
| ļ | 606-20-2 | -2,6-Dinitrotoluene | . 390 | U | |
| I | 99-09-2 | -3-Nitroaniline | 980 | U | |
| ļ | 83-32-9 | -Acenaphthene | 390 | U | |
| | | | <u>`</u> | <u> </u> | |
| | | | | | |

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

JM196

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM166

Lab Sample ID: 835282 Matrix: (soil/water) SOIL

Sample wt/vol: 30.0 (g/mL) g Lab File ID: GH035282A64

Level: (low/med) LOW Date Received: 12/21/96

% Moisture: 11 decanted: (Y/N) N Date Extracted:12/23/96

Concentrated Extract Volume: 500 (uL) Date Analyzed: 12/30/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.6

CONCENTRATION UNITS: Number TICs found: 16 (ug/L or ug/Kg) ug/Kg

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|------------------------|----------------------------|---------------|---------------------------------------|-------------|
| | | ======= | ========== | ===== |
| 1. | ALDOL (BC) | 4.42 | 6900 | JAB R |
| 2. | UNICOWN (BC) | 4.63 | 340 | |
| 3. 822-86-6 | CYCLOHEXANE, 1,2 DICHORO , | 7.38 | 170 | |
| 4. | UNKNOWN CARBOXYLIC ACID | 14.84 | 750 | |
| 5. | UNKNOWN | 16.56 | 83 | |
| 5. | UNKNOWN . | 17.45 | | |
| | | | | 1 1 |
| 7. | UNKNOWN ALCOHOL | 18.06 | 440 | J |
| 8. | UNKNOWN ALCOHOL | 20.08 | 230 | J |
| 9 | UNKNOWN | 21.17 | · 370 | J |
| 10. | UNFNOWN | 22.27 | 110 | J |
| 11. | UNKNOWN | 22.49 | 99 | J |
| 12. | UNKNOWN | 22.99 | 530 | J |
| 13. | UNKNOWN | 23.11 | 160 | J |
| 14. | UNKNOWN | 23.56 | 160 | J |
| 15. | UNKNOWN | 23.86 | 82 | J+i |
| 16. | UNKNOWN | 24.27 | 260 | JV |
| 17. | _ | 24.27 | 200 | 0,19 |
| | | | · · · · · · · · · · · · · · · · · · · | |
| 18 | | | | |
| 47. | | | <u> </u> | |
| 20. | | | | |
| 21. | <u> </u> | | | |
| 1 44. | | | | |
| 23. | | | | |
| 1 44. | | | | |
| ا نے ، | | | | |
| 26. | | · · · · · · · | | |
| 27. | | | | |
| 28 | | | | |
| 28. | | | | |
| 30. | | l | | |
| 30 | | | | |
| | | | | |

Contract: 68D50009 Lab Name: COMPUCHEM ENV. CORP.

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM166

Lab Sample ID: 835282 Matrix: (soil/water) SOIL

Sample wt/vol: 30.0 (g/mL) gLab File ID: GH035282A64

Date Received: 12/21/96 Level: (low/med) LOW

Date Extracted:12/23/96 decanted: (Y/N) N % Moisture: 11

Concentrated Extract Volume: 500 (uL) Date Analyzed: 12/30/96

Dilution Factor: 1.0 Injection Volume: 2.0(uL)

pH: 6.6 GPC Cleanup: (Y/N) Y

| CAS NO. | COMPOUND | (ug/L or ug/Kg) ug/Kg | | Q |
|---------|---------------|-----------------------|------------|---------|
| | 2,4-Dinitroph | | 930 930 | ם רם |

| 51-28-52, 4-Dinitrophenol 100-02-74-Nitrophenol 132-64-9Dibenzofuran 121-14-22, 4-Dinitrotoluene 84-66-2Diethylphthalate 7005-72-34-Chlorophenyl-phenylether 86-73-7Fluorene 100-01-64-Nitroaniline 534-52-14, 5-Dinitro-2-methylphenol 86-30-6N-nitrosodiphenylamine (1) 101-55-34-Bromophenyl-phenylether 118-74-1Hexachlorobenzene 87-86-5Pentachlorophenol 85-01-8Phenanthrene 120-12-7Anthracene 86-74-8Carbazole 84-74-2Di-n-butylphthalate 206-44-0Fluoranthene 129-00-0Pyrene 85-68-7Butylbenzylphthalate 91-94-13,3'-Dichlorobenzidine 56-55-3Benzo(a) anthracene 218-01-9 | 930 U J 930 U 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J 370 U J | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| 91-94-13,3'-Dichlorobenzidine 56-55-3Benzo(a)anthracene 218-01-9Chrysene | 370 U J 370 U 370 U | |

- Cannot be separated from Diphenylamine

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM166

Matrix: (soil/water) SOIL Lab Sample ID: 835282

Sample wt/vol: 30.0 (g/mL) g Lab File ID: GH035282A64

Level: (low/med) LOW Date Received: 12/21/96

% Moisture: 11 decanted: (Y/N) N. Date Extracted:12/23/96

Concentrated Extract Volume: 500(uL) Date Analyzed: 12/30/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.6

CONCENTRATION UNITS:
CAS NO. COMPOUND (ug/L or ug/Kg) ug/Kg Q

| 108-95-2Phenol 370 111-44-4bis (2-Chloroethyl) ether 370 95-57-82-Chlorophenol 370 541-73-11,3-Dichlorobenzene 370 106-46-71,4-Dichlorobenzene 370 95-50-11,2-Dichlorobenzene 370 95-48-72-Methylphenol 370 108-60-12,2'-oxybis(1-Chloropropane) 370 | U U U U U U U |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|
| 111-44-4bis (2-Chloroethyl)ether 370 95-57-82-Chlorophenol 370 541-73-11,3-Dichlorobenzene 370 106-46-71,4-Dichlorobenzene 370 95-50-11,2-Dichlorobenzene 370 95-48-72-Methylphenol 370 | U U U U U U U |
| 95-57-82-Chlorophenol 370 541-73-11,3-Dichlorobenzene 370 106-46-71,4-Dichlorobenzene 370 95-50-11,2-Dichlorobenzene 370 95-48-72-Methylphenol 370 | บ บ บ บ บ |
| 541-73-11,3-Dichlorobenzene 370 106-46-71,4-Dichlorobenzene 370 95-50-11,2-Dichlorobenzene 370 95-48-72-Methylphenol 370 | บ บ บ บ บ |
| 106-46-71,4-Dichlorobenzene 370 95-50-11,2-Dichlorobenzene 370 95-48-72-Methylphenol 370 | บ บ บ บ |
| 95-50-11,2-Dichlorobenzene 370 95-48-72-Methylphenol 370 | บ บ บ |
| 95-48-72-Methylphenol 370 | บ บ |
| | U |
| | |
| 106-44-54-Methylphenol 370 | |
| 621-64-7N-Nitroso-di-n-propylamine 370 | U |
| 67-72-1Hexachloroethane 370 | |
| 98-95-3Nitrobenzene 370 | |
| 78-59-1Isophorone 370 | |
| 88-75-52-Nitrophenol 370 | |
| 105-67-92,4-Dimethylphenol 370 | |
| 111-91-1bis (2-Chloroethoxy) methane 370 | |
| 120-83-22,4-Dichlorophenol 370 | |
| 120-82-11,2,4-Trichlorobenzene 370 | |
| 91-20-3Naphthalene 370 | |
| 106-47-84-Chloroaniline 370 | |
| 87-68-3Hexachlorobutadiene 370 | |
| 59-50-74-Chloro-3-methylphenol 370 | |
| 91-57-62-Methylnaphthalene 370 | |
| 77-47-4Hexachlorocyclopentadiene 370 | U |
| 88-06-22,4,6-Trichlorophenol370 | U · |
| 95-95-42,4,5-Trichlorophenol 930 | U |
| 91-58-72-Chloronaphthalene 370 | |
| 88-74-42-Nitroaniline 930 | |
| 131-11-3Dimethylphthalate 370 | |
| | Ū |
| · · · · · · · · · · · · · · · · · · · | Ū |
| · · · · · · · · · · · · · · · · · · · | Ū |
| 83-32-9Acenaphthene 370 | |
| | |

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

JM195

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU

Case No.: 25253 SAS No.:

SDG No.: JM166

Matrix: (soil/water) SOIL

Lab Sample ID: 835281

Sample wt/vol:

30.0 (g/mL) g

Lab File ID:

GH035281A64

Level: (low/med) LOW

Date Received: 12/21/96

% Moisture: 11 decanted: (Y/N) N

Date Extracted:12/23/96

Concentrated Extract Volume: 500 (uL)

Date Analyzed: 12/30/96

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.2

Number TICs found: 12

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

| | | T | 1 | |
|-------------------------|-----------------------------------------|------------------------------------------------|-------------|-------------|
| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | 1 ~ 1 |
| } | ALDOL (BC) | - / | -========= | 1 1 |
| 1 | UNKNOWN (BC) | 4.43 | 8300 | 1 |
| 3. 822-67-3 | , — — · · · · · · · · · · · · · · · · · | | 1 | |
| 1 | 2-CYCLOHEXEN-1-OL | 5.06 | 160 | 1 1 |
| 4. 930-68-7 | 2-CYCLOHEXEN-1-ONE | 5.64 | 130 | |
| 5. | UNKNOWN | 7.12 | | AT N |
| 6. 822-86-6- | CYCLOIEXANE, 1,2 DICILORO, | 7.38 | 260 | |
| 7. | UNKNOWN CARBOXYLIC ACID | 14.82 | 75 | |
| 8. | UNKNOWN | 17.45 | 3.80 | |
| 9. | UNKNOWN | 17.91 | 160 | J |
| 10. | UNKNOWN | 17.98 | 180 | J |
| 11. | UNKNOWN | 18.02 | 550 | J, |
| 12. | UNKNOWN | 19.94 | 110 | J∜ |
| 13 | | .l <u>. </u> | · | |
| 14. | | | | |
| 15. | | | | |
| 16 | | | | |
| 1 <i>1 / .</i> | | | | |
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| 30. | _ | | | |
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· SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

JM195

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM166

Matrix: (soil/water) SOIL

Lab Sample ID: 835281

Sample wt/vol: 30.0 (g/mL) g Lab File ID: GH035281A64

CONCENTRATION UNITS:

Level: (low/med) LOW

Date Received: 12/21/96

% Moisture: 11 decanted: (Y/N) N

Date Extracted:12/23/96

Concentrated Extract Volume: 500(uL)

Date Analyzed: 12/30/96

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.2

| CAS NO. | COMPOUND | (ug/L or ug/k | | Q |
|---------------|--------------------|-------------------|-------|-----|
| 51-28-5 | 2,4-Dinitropher | nol | 930 | ן ע |
| | 4-Nitrophenol | | 930 | 1 1 |
| | Dibenzofuran | | 370 | |
| | 2,4-Dinitrotoli | iene | 370 | , , |
| | Diethylphthalat | | 370 | |
| | 4-Chlorophenyl- | | 370 | |
| | Fluorene | | 370 | 1 |
| | 4-Nitroaniline | • | 930 | |
| | 4,6-Dinitro-2-n | et hylphenol | 930 | |
| | N-nitrosodipher | | 370 | |
| | 4-Bromophenyl-r | | 370 | |
| | Hexachlorobenze | | 370 | |
| | Pentachloropher | | 930 | |
| | Phenanthrene | | 370 | |
| | Anthracene | | 370 | |
| | Carbazole |) | 370 | |
| | Di-n-butylphtha | late | 370 | |
| | Fluoranthene | | 370 | |
| 129-00-0 | | [| 370 | |
| | Butylbenzylphth | valate | 370 | |
| | 3,3'-Dichlorobe | | 370 | |
| | Benzo(a) anthrac | | 370 | |
| | Chrysene | | 370 | |
| | bis(2-Ethylhex) | llphthalate | 120 | |
| | Di-n-octylphtha | | 370 | |
| | Benzo(b) fluorar | | 370 | |
| | Benzo(k) fluorar | | 370 | |
| | Benzo (a) pyrene | | 370 | |
| | Indeno(1,2,3-co | Ilnymene | 370 | 1 |
| | Dibenzo (a, h) ant | | 370 | 1 1 |
| | Benzo(g,h,i)per | | 370 | 1 1 |
| エンエーではニマニニニュ | benzong, m, 17 per | . y 10110 | 370 | |
|) - Cannot be | separated from Dip | l_ phenylamine | ····· | ll |

JM195

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU

Case No.: 25253 SAS No.:

SDG No.: JM165

Matrix: (soil/water) SOIL

Lab Sample ID: 835281

Sample wt/vol:

30.0 (g/mL) g

Lab File ID: GH035281A64

Level: (low/med) LOW

Date Received: 12/21/96

% Moisture: 11 decanted: (Y/N) N

Date Extracted:12/23/96

Concentrated Extract Volume:

500 (址)

Date Analyzed: 12/30/96

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.2

CONCENTRATION UNITS:

CAS NO.

COMPOUND

(ug/L or ug/Kg) ug/Kg

| | | T | , |
|----------|------------------------------|-------|-----|
| 108-95-2 | Phenol | 370 | U |
| | bis(2-Chloroethyl)ether | 370 | U |
| | 2-Chlorophenol | 370 | U |
| | 1,3-Dichlorobenzene | 370 | _ |
| | 1,4-Dichlorobenzene | 370 | 1 - |
| | 1,2-Dichlorobenzene | 370 | , |
| | 2-Methylphenol | 370 | - |
| | 2,2'-oxybis(1-Chloropropane) | 370 | 1 |
| 106-44-5 | 4-Methylphenol | 370 | 1 |
| | N-Nitroso-di-n-propylamine | 370 | i |
| | Hexachloroethane | 370 | _ |
| | Nitrobenzene | 370 | |
| 78-59-1 | | 370 | _ |
| 70-33-1 | 2-Nitrophenol | 370 | 1 |
| 305 (3 0 | 2,4-Dimethylphenol | 370 | l |
| | bis(2-Chloroethoxy)methane | 370 | _ |
| | | 370 | l - |
| | 2,4-Dichlorophenol | 370 | |
| | 1,2,4-Trichlorobenzene | _ | 1 - |
| | Naphthalene | 370 | 1 - |
| | 4-Chloroaniline | 370 | 1 |
| | Hexachlorobutadiene | 370 | |
| | 4-Chloro-3-methylphenol | 370 | 1 - |
| | 2-Methylnaphthalene | 370 | ſ. |
| | Hexachlorocyclopentadiene | . 370 | 1 |
| | 2,4,6-Trichlorophenol | 370 | |
| | 2,4,5-Trichlorophenol | 930 | |
| | 2-Chloronaphthalene | 370 | _ |
| | 2-Nitroaniline | 930 | ſ |
| | Dimethylphthalate | 370 | _ |
| | Acenaphthylene | 370 | |
| | 2,6-Dinitrotoluene | 370 | U |
| 99-09-2 | 3-Nitroaniline | 93.0 | U |
| 83-32-9 | Acenaphthene | 370 | Ū |
| | | | |

1F

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

JM194

SDG No.: JM166

Matrix: (soil/water) SOIL

Lab Sample ID: 835280

Sample wt/vol: $30.1 (g/\pi L) g$

Lab File ID: GH035280A64

Level: (low/med) LOW Date Received: 12/21/96

% Moisture: 21

decanted: (Y/N) N

Date Extracted:12/23/96

Concentrated Extract Volume: 500(uL)

Date Analyzed: 12/30/96

Injection Volume: 2.0(uL)

Number TICs found: 28

Lab Code: COMPU Case No.: 25253 SAS No.:

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.7

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

| | I | T | · · · · · · · · · · · · · · · · · · · | |
|--------------|-----------------------------------------|---------|---------------------------------------|-------------|
| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
| ============ | ======================================= | ======= | ========= | ===== |
| 1. | ALDOL (BC) | | 8100 | JAB K |
| 2. | UNIGNOWN (BC) | €.63 | | 133 R |
| 3. 930-68-7 | 2-CYCLOHEXEN-1-ONE | 5.63 | | NJ |
| 4. 822-86-6 | CYCLOHEXANS, 1,2 DICHORO , | 7.37 | | NOB K |
| .5. | UNKNOWN | 14.78 | | JN |
| 6. | UNKNOWN CARBOXYLIC ACID | 14.83 | 240 | |
| 7. | UNKNOWN | 15.91 | 110 | |
| S. | UNKNOWN | 17.08 | 100 | |
| 9. | UNKNOWN | 17.18 | 150 | |
| 10. | UNKNOWN | 17.24 | 120 | |
| 11. | UNKNOWN | 17.32 | 120 | |
| 12. | UNKNOWN | 17.45 | 97 | J |
| 13. | UNKNOWN ALCOHOL | 18.05 | 610 | - 1 |
| 14. | UNKNOWN AMIDE | 19.50 | 120 | |
| 15. | UNKNOWN | 19.74 | 240 | |
| 16. | UNKNOWN | 20.61 | 290 | |
| 17. | UNKNOWN ALCOHOL | 21.17 | 560 | J |
| lS. | UNKNOWN | 21.27 | 93 | J |
| 19. | UNKNOWN | 22.27 | 280 | J |
| 20. | UNKNOWN | 22.99 | 2100 | |
| 21. | UNKNOWN | 23.15 | 560 | |
| 22. | UNKNOWN | 23.37 | | J |
| 23. | UNKNOWN | 23.46 | 330 | J |
| 24. | UNICIOUN | 23.63 | 490 | |
| 25. | NNONDIAN . | 23.86 | 140 | |
| 26. | UNKNOWN | 23.96 | 680 | JI |
| 27. | NNONYMU | 24.09 | 200 | J |
| 28. | NYONANU | 24.28 | 560 | JN) |
| 29. | | | | -, - |
| 30. | | | | |
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Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM166

Matrix: (soil/water) SOIL Lab Sample ID: 835280

Sample wt/vol: 30.1 (g/mL) g Lab File ID: GH035280A64

Level: (low/med) LOW Date Received: 12/21/96

% Moisture: 21 decanted: (Y/N) N Date Extracted:12/23/96

Concentrated Extract Volume: 500(uL) Date Analyzed: 12/30/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.7

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/Kg Q

| | | , |
|-------------------------------------|-------------|--------------|
| 51-28-52,4-Dinitrophenol | 1000 | U_l |
| 100-02-74-Nitrophenol | 1000 | |
| 132-64-9Dibenzofuran | 420 | 1 - |
| 121-14-22,4-Dinitrotoluene | 420 | 1 - |
| 84-66-2Diethylphthalate | 420 | I |
| 7005-72-34-Chlorophenyl-phenylether | .420 | 1 |
| 86-73-7Fluorene | 420 | i - |
| 100-01-64-Nitroaniline | 1000 | ; - |
| 534-52-14,6-Dinitro-2-methylphenol | 1000 | , - |
| 86-30-6N-nitrosodiphenylamine (1) | 420 | |
| 101-55-34-Bromophenyl-phenylether | 420 | _ |
| 118-74-1Hexachlorobenzene | 420 | |
| 87-86-5Pentachlorophenol | 1000 | |
| | 1 | |
| 85-01-8Phenanthrene | 420 | _ |
| 120-12-7Anthracene | 420 | _ |
| 86-74-8Carbazole | 420 | |
| 84-74-2Di-n-butylphthalate | 420 | _ |
| 206-44-0Fluoranthene | 420 | |
| 129-00-0Pyrene - | 420 | |
| 85-68-7Butylbenzylphthalate | 420 | _ |
| 91-94-13,3'-Dichlorobenzidine | 420 | |
| 56-55-3Benzo(a) anthracene | 420 | |
| 218-01-9Chrysene | 420 | |
| 117-81-7bis(2-Ethylhexyl)phthalate_ | 120 | J 🗸 |
| 117-S4-0Di-n-octylphthalate | 420 | U |
| 205-99-2Benzo(b) fluoranthene | 420 | Ū. |
| 207-08-9Benzo(k) fluoranthene | 420 | U |
| 50-32-\$Benzo(a) pyrene | 420 | U |
| 193-39-5Indeno(1,2,3-cd)pyrene | 420 | U |
| 53-70-3Dibenzo(a,h)anthracene | 420 | Ū |
| 191-24-2Benzo(g,h,i)perylene | 420 | U |
| | | |
| | · | |

(1) - Cannot be separated from Diphenylamine

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM166

Matrix: (soil/water) SOIL Lab Sample ID: 835280

Sample wt/vol: 30.1 (g/ π L) g Lab File ID: GH035280A64

Level: (low/med) LOW Date Received: 12/21/96

% Moisture: 21 decanted: (Y/N) N Date Extracted:12/23/96

Concentrated Extract Volume: 500(uL) Date Analyzed: 12/30/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.7

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/Kg O

| CAS NO. | COMPOUND (ug/L of ug | /kg) ug/kg | . Q |
|-----------|------------------------------|------------|------------|
| 108-95-2 | Phenol | 420 | U |
| 111-44-4 | bis(2-Chloroethyl)ether | 420 | |
| | 2-Chlorophenol | 420 | lυ |
| | 1,3-Dichlorobenzene | 420 | U |
| 106-46-7 | 1,4-Dichlorobenzene | 420 | U |
| 95-50-1 | 1,2-Dichlorobenzene | 420 | υ |
| | 2-Methylphenol | 420 | U |
| 108-60-1 | 2,2'-oxybis(1-Chloropropane) | 420 | שו |
| | 4-Methylphenol | 420 | U |
| 621-64-7 | N-Nitroso-di-n-propylamine | 420 | U |
| 67-72-1 | Hexachloroethane | 420 | ับ |
| 98-95-3 | Nitrobenzene | 420 | U |
| 78-59-1 | Isophorone | 420 | U |
| 88-75-5 | 2-Nitrophenol | 420 | υ |
| | 2,4-Dimethylphenol | 420 | ט |
| | bis(2-Chloroethoxy)methane | 420 | U |
| 120-83-2 | 2,4-Dichlorophenol | 420 | |
| | 1,2,4-Trichlorobenzene | 420 | ט |
| | Naphthalene | . 420 | ש |
| | 4-Chloroaniline | 420 | ט |
| 87-68-3 | Hexachlorobutadiene | 420 | U |
| 59-50-7 | 4-Chloro-3-methylphenol | 420 | ับ |
| 91-57-6 | 2-Nethylnaphthalene | 420 | U |
| | Hexachlorocyclopentadiene | 420 | U |
| 88-06-2 | 2,4,6-Trichlorophenol | 420 | U |
| 95-95-4 | 2,4,5-Trichlorophenol | 1000 | U |
| 91-58-7 | 2-Chloronaphthalene | 420 | U |
| 88-74-4 | 2-Nitroaniline | 1000 | ט |
| 131-11-3 | Dimethylphthalate | 420 | U |
| | Acenaphthylene | 420 | ַ <u>י</u> |
| 605-20-2 | 2,6-Dinitrotoluene | 420 | U |
| . 99-09-2 | 3-Nitrosniline | 1000 | U. |
| | Acenaphthene | 420 | U |
| | | | 1 |
| ' | | · | |

EPA SAMPLE NO.

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

JM178

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM166

Matrix: (soil/water) SOIL

Lab Sample ID: 835276

Sample wt/vol: 30.0 (g/mL) g Lab File ID: GJ035276C64

Level: (low/med) LOW

Date Received: 12/21/96

% Moisture: 12 decanted: (Y/N) N Date Extracted:12/23/96

Concentrated Extract Volume: 500 (uL) Date Analyzed: 12/31/96

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.0

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

Number TICs found: 7

CAS NUMBER COMPOUND NAME RTEST. CONC. ALDOL (BC) 5000 JAB R 300 JD 4.59 UNICHOWN (BC) 7.32 CYCLOHEXANE, 1,2 DICHLORO, - 98 |NJB ∜ 3. 822 86 6 - 200 JU UNKNOWN ALCOHOL 18.00 4. 170 J I UNKNOWN ALCOHOL 19.06 6. 350 J UNKNOWN 22.88 160] 1 UNKNOWN 7. 24.11 10. 11. 12. 13. 14. 15. 16. 17. _ 18.___ 19. 20. 21. 22. 23. _ 24. 26. 27.

28. 29. 30.

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM166

Matrix: (soil/water) SOIL

Lab Sample ID: 835276

Sample wt/vol: 30.0 (g/mL) g

Lab File ID: GJ035276C64

Level: (low/med) LOW

Date Received: 12/21/96

% Moisture: 12 decanted: (Y/N) N

Date Extracted:12/23/96

Concentrated Extract Volume: 500(uL) Date Analyzed: 12/31/96

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.0

| CAS NO. | COMPOUND | CONCENTRATION (ug/L or ug/k | | Q |
|-----------|-----------------------------|-----------------------------|------|----------|
| 51-28-5 | 2,4-Dinitrophe | enol | 940 | U.J |
| 100-02-7 | 4-Nitrophenol | | .940 | . ~ . |
| | Dibenzofuran | | 380 | 1 1 |
| | 2,4-Dinitroto | luene | 380 | |
| | Diethylphthala | | 380 | 1 |
| 7005-72-3 | 4-Chlorophenyl | l-phenylether | 380 | |
| 86-73-7 | Fluorene | | 380 | 1 1 |
| | 4-Nitroaniline | 2 | 940 | |
| | 4,6-Dinitro-2- | | 940 | 1 |
| | N-nitrosodiphe | | 380 | |
| | 4-Bromophenyl- | | 380 | |
| | Hexachlorobenz | | 380 | 1 1 |
| | Pentachlorophe | | 940 | |
| | Phenanthrene | | 380 | |
| | Anthracene | | 380 | |
| | Carbazole | | 380 | |
| | Di-n-butylphth | nalate | 380 | |
| | Fluorantĥene | | 380 | |
| 129-00-0 | | | 380 | |
| | Butylbenzylpht | halate | 380 | |
| 91-94-1 | 3,3 ⁷ -Dichlorob | penzidine | 380 | |
| | Benzo (a) anthra | | 380 | |
| | Chrvsene | | 380 | |
| | bis(2-Ethylhex | (yl)phthalate | 68 | |
| | Di-n-octylphth | | 380 | |
| | Benzo(b) fluora | | 380 | ט |
| 207-08-9 | Benzo(k)fluora | anthene | 380 | บ |
| | Benzo (a) pyrene | | 380 | 1 |
| | Indeno (1, 2, 3-c | | 380 | 1 1 |
| | Dibenzo(a,h)ar | | 380 | 1 1 |
| | Benzo(g,h,i)pe | | 380 | 1 1 |
| | | - | | 1 |

JM178

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.:

SDG No.: JM166

Matrix: (soil/water) SOIL

Lab Sample ID: 835276

Sample wt/vol: 30.0 (g/mL) g

Lab File ID: GJ035276C64

Q

Level: (low/med) LOW

Date Received: 12/21/96

% Moisture: 12 decanted: (Y/N) N

Date Extracted: 12/23/96

Concentrated Extract Volume: 500(uL)

Date Analyzed: 12/31/96

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.0

| | | CONCENTRATION UNITS: |
|---------|----------|--------------------------|
| CAS NO. | COMPOUND | (ug/L or ug/Kg) ug/Kg ·· |

| 108-95-2Phenol | 380 | U |
|--------------------------------------|-------|----|
| 111-44-4bis(2-Chloroethyl)ether | 380 | U |
| 95-57-82-Chlorophenol | 380 | U |
| 541-73-11,3-Dichlorobenzene | 380 | U |
| 106-46-71,4-Dichlorobenzene | 380 | U |
| 95-50-11,2-Dichlorobenzene | 380 | U |
| 95-48-72-Methylphenol | 380 | U |
| 108-60-12,2'-oxybis(1-Chloropropane) | . 380 | U |
| 106-44-54-Methylphenol | 380 | 1 |
| 621-64-7N-Nitroso-di-n-propylamine | 380 | U |
| 67-72-1Hexachloroethane | 380 | U |
| 98-95-3Nitrobenzene | . 380 | U |
| 78-59-1Isophorone | 380 | U |
| 88-75-52-Nitrophenol | 380 | U |
| 105-67-92,4-Dimethylphenol | 380 | บ |
| 111-91-1bis(2-Chloroethoxy)methane | 380 | U |
| 120-83-22,4-Dichlorophenol | 380 | Ū |
| 120-82-11,2,4-Trichlorobenzene | 380 | ט |
| 91-20-3Naphthalene | 380 | U |
| 106-47-84-Chloroaniline | 380 | U |
| 87-68-3Hexachlorobutadiene | 380 | U |
| 59-50-74-Chloro-3-methylphenol | 380 | U |
| 91-57-62-Methylnaphthalene | 380 | U |
| 77-47-4Hexachlorocyclopentadiene | 380 | U |
| 88-06-22,4,6-Trichlorophenol | 380 | U |
| 95-95-42,4,5-Trichlorophenol | 940 | U |
| 91-58-72-Chloronaphthalene | . 380 | U |
| 88-74-42-Nitroaniline | 940 | U |
| 131-11-3Dimethylphthalate | 380 | U |
| 208-96-SAcenaphthylene | 380 | U |
| 606-20-22,6-Dinitrotoluene | 380 | |
| 99-09-23-Nitroaniline | 940 | Lυ |
| 83-32-9Acenaphthene | 380 | U |
| | | |

EPA SAMPLE NO.

JM177

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM166

Matrix: (soil/water) SOIL

Lab Sample ID: 835275

Sample wt/vol: 30.0 (g/mL) g Lab File ID: GH035275A64

Level: (low/med) LOW

Date Received: 12/21/96

% Moisture: 9 decanted: (Y/N) N

Date Extracted:12/23/96

Concentrated Extract Volume: 500 (uL)

Date Analyzed: 12/30/96

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.1

Number TICs found: 6

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | 1 ~ ; |
|-------------------------------------------------------|------------------------------------------------------------------------------------------|--------------------------------------|------------------------------|---------------------------|
| 1. 2. 3. 822-67-3 4. 930-68-7 5. 822-86-6 | ALDOU (BC) UNTAXONN (BC) 2-CYCLOHEXEN-1-OL 2-CYCLOHEXEN-1-ONE CYCLOHEXANE, 1,2-DIGHLORO, | 4.42 4.63 5.07 5.64 7.38 | 7000 440 80 | UAB (UB R NJ NJ |
| 6. 7. 8. 9. | UNKNOWN | 17.45 | 3800 | |
| 12. 13. 14. 15. 16. 17. | | | | |
| 18. 19. 20. 21. 22. | | | | |
| 24. 25. 26. 27. | | | | |
| 29. 30. | | | | |



Lab Name: COMPUCHEM ENV. CORP.

Contract: 68D50009

Lab Code: COMPU

Case No.: 25253 SAS No.:

SDG No.: JM166

Matrix: (soil/water) SOIL

Lab Sample ID: 835275

Sample wt/vol:

30.0 (g/mL) g

Lab File ID:

GH035275A64

Level:

(low/med) LOW Date Received: 12/21/96

% Moisture: 9 decanted: (Y/N) N

Date Extracted:12/23/96

Concentrated Extract Volume:

500 (uL)

Date Analyzed: 12/30/96

Injection Volume:

2.0(址)

Dilution Factor: 1.0

GPC Cleanup:

(Y/N) Y

pH: 6.1

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg CAS NO. COMPOUND

| | | 1 |
|-------------------------------------|--------|----|
| 51-28-52,4-Dinitrophenol | 910 | עט |
| 100-02-74-Nitrophenol | 910 | U. |
| 132-64-9Dibenzofuran | 360 | U |
| 121-14-22,4-Dinitrotoluene | 360 | U |
| 84-66-2Diethylphthalate | 360 | ט |
| 7005-72-34-Chlorophenyl-phenylether | 360 | U |
| 86-73-7Fluorene | 360 | ប |
| 100-01-64-Nitroaniline | 910 | LU |
| 534-52-14,6-Dinitro-2-methylphenol | 910 | Ū |
| S6-30-6N-nitrosodiphenylamine (1) | 360 | |
| 101-55-34-Bromophenyl-phenylether | 360 | |
| 118-74-1Hexachlorobenzene | 360 | i |
| 87-86-5Pentachlorophenol | 910 | |
| 85-01-SPhenanthrene | 360 | |
| 120-12-7Anthracene | 360 | |
| 86-74-8Carbazole | 360 | |
| 84-74-2Di-n-butylphthalate | 360 | |
| 206-44-0Fluoranthene | 360 | |
| 129-00-0Pyrene - | 360 | |
| 85-68-7Butylbenzylphthalate | 360 | |
| 91-94-13,3'-Dichlorobenzidine | 360 | |
| 56-55-3Benzo (a) anthracene | 360 | |
| 218-01-9Chrysene | 360 | |
| 117-81-7bis(2-Ethylhexyl)phthalate | 130 | Jν |
| 117-S4-0Di-n-octylphthalate | 360 | Ū |
| 205-99-2Benzo(b) fluoranthene | 360 | U |
| 207-08-9Benzo(k) fluoranthene | | |
| 50-32-8Benzo(a)pyrene | 360 | |
| 193-39-5Indeno(1,2,3-cd)pyrene | 360 | |
| 53-70-3Dibenzo (a, h) anthracene | 360 | |
| 191-24-2Benzo(g,h,i)perylene | 360 | |
| | | |
| | · ———— | |

(i) - Cannot be separated from Diphenylamine

JM177

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.:

SDG No.: JM166

Matrix: (soil/water) SOIL

Lab Sample ID: 835275

Sample wt/vol: 30.0 (g/mL) g Lab File ID: GH035275A64

CONCENTRATION UNITS:

Level: (low/med) LOW

Date Received: 12/21/96

% Moisture: 9 decanted: (Y/N) N. Date Extracted:12/23/96

Concentrated Extract Volume: 500 (uL)

Date Analyzed: 12/30/96

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.1

| CAS NO. | COMPOUND (L | ng/L or ug/Kg) ug/ | Kg Q |
|----------|---------------------|--------------------|---------|
| 108-95-2 | | | 360 U |
| | bis(2-Chloroethyl) | ether | 360 U |
| | 2-Chlorophenol | | 360 U |
| | 1,3-Dichlorobenzene | | 360 U |
| | 1,4-Dichlorobenzene | | 360 U |
| | 1,2-Dichlorobenzene | | 360 U |
| | 2-Methylphenol | | 360 U |
| 108-60-1 | 2,2'-oxybis(1-Chlor | copropane) | 360 U |
| 106-44-5 | 4-Methylphenol | · . | . 360 U |
| 621-64-7 | N-Nitroso-di-n-prop | ylamine | 360 U |
| 67-72-1 | Hexachloroethane | | 360 U |
| 98-95-3 | Nitrobenzene | | 360 U |
| | Isophorone | | 360 U |
| 88-75-5 | 2-Nitrophenol | | 360 U |
| 105-67-9 | 2,4-Dimethylphenol | | 360 U |
| 111-91-1 | bis(2-Chloroethoxy) | methane | 360 U |
| 120-83-2 | 2,4-Dichlorophenol | | 360 U |
| 120-82-1 | 1,2,4-Trichlorobenz | ene | 360 U |
| 91-20-3 | Naphthalene | | 360 U ' |
| | 4-Chloroaniline | | 360 U |
| | Hexachlorobutadiene | | 360 U |
| 59-50-7 | 4-Chloro-3-methylph | nenol | 360 U |
| | 2-Nethylnaphthalene | | 360 U |
| 77-47-4 | Hexachlorocyclopent | adiene | 360 U |
| 88-06-2 | 2,4,6-Trichloropher | nol | 360 U |
| | 2,4,5-Trichloropher | | 910 U |
| | 2-Chloronaphthalene | | 360 U |
| | 2-Nitroaniline | | 910 U |
| | Dimethylphthalate | | 360 U |
| | Acenaphthylene | | 360 U |
| 606-20-2 | 2,6-Dinitrotoluene | | 360 U |
| 99-09-2 | 3-Nitroaniline | | 910 U |
| | Acenaphthene | | 360 U |
| | | | |

EPA SAMPLE NO.

JM176

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.:

SDG No.: JM166

Matrix: (soil/water) SOIL

Lab Sample ID: 835274

Sample wt/vol:

30.0 (g/mL) g

Lab File ID: GH035274C64

Level: (low/med)

Date Received: 12/21/96

% Moisture: 15

decanted: (Y/N) N

Date Extracted:12/23/96

Concentrated Extract Volume: 500(uL)

Date Analyzed: 12/30/96

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y

pH: 7.2

Number TICs found: 6

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|-------------------------------------------|----------------------------------------------------------------------------|-------------------------------------------------|---------------------------------------|-----------------------|
| 1. 2. 3. 930-68-7 4. 5. 6. | ALDOL (BC) UNKNOWN (BC) 2-CYCLOHEXEN-1-ONE UNKNOWN UNKNOWN ALCOHOL UNKNOWN | 4.50 4.72 5.71 17.52 18.15 23.22 | 8800 370 120 85 81 110 | JB R NJ JD J |
| 9. 10. 11. 12. 13. | . , | | | |
| 16. 17. 18. 19. | | | | |
| 23. 24. 25. 26. | | | | |
| 28. 29. 30. | | | | |

SDG No.: JM166

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

GPC Cleanup: (Y/N) Y

Lab Code: COMPU Case No.: 25253 SAS No.:

Matrix: (soil/water) SOIL Lab Sample ID: 835274

Sample wt/vol: 30.0 (g/mL) g Lab File ID: GH035274C64

Level: (low/med) LOW Date Received: 12/21/96

% Moisture: 15 decanted: (Y/N) N Date Extracted: 12/23/96

Concentrated Extract Volume: 500 (uL) Date Analyzed: 12/30/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

injection volume: 2.0 (th)

pH: 7.2

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/Kg

| 51-28-5 | 2,4-Dinitrophenol | 980 | لاتا |
|-----------|----------------------------|-------|------|
| 100-02-7 | 4-Nitrophenol | 980 | U |
| 132-64-9 | Dibenzofuran | . 390 | U |
| 121-14-2 | 2,4-Dinitrotoluene | . 390 | U |
| 84-66-2 | Diethylphthalate | 390 | U |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 390 | U |
| 86-73-7 | Fluorene | 390 | ט |
| | 4-Nitroaniline | 980 | Lu |
| 534-52-1 | 4,6-Dinitro-2-methylphenol | 980 | υ |
| | N-nitrosodiphenylamine (1) | 390 | Ū |
| | 4-Bromophenyl-phenylether | 390 | U |
| | Hexachlorobenzene | 390 | 1 |
| | Pentachlorophenol | 980 | , |
| | Phenanthrene | 390 | |
| | Anthracene | 390 | |
| | Carbazole | 390 | ı |
| | Di-n-butylphthalate | 390 | |
| | Fluoranthene | 390 | F |
| 129-00-0 | | 390 | |
| | Butylbenzylphthalate | 390 | |
| | 3,3'-Dichlorobenzidine | 390 | |
| | Benzo(a)anthracene | 390 | |
| | Chrysene | 390 | U |
| | bis(2-Ethylhexyl)phthalate | 57 | |
| | Di-n-octylphthalate | 390 | |
| 205-99-2 | Benzo(b) fluoranthene | 390 | |
| | Benzo(k)fluoranthene | 390 | - |
| | Benzo (a) pyrene | 390 | 1 - |
| | Indeno(1,2,3-cd)pyrene | . 390 | i |
| | Dibenzo (a, h) anthracene | 390 | 1 |
| | Benzo(g,h,i)perylene | 390 | 1 |
| | | 330 |] |

FORM I SV-2

OLM03.0

JM176

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM166

Matrix: (soil/water) SOIL

Lab Sample ID: 835274

Sample wt/vol: 30.0 (g/mL) g

Lab File ID: GH035274C64

Level: (low/med) LOW

Date Received: 12/21/96

% Moisture: 15 decanted: (Y/N) N Date Extracted:12/23/96

Concentrated Extract Volume: 500(uL) Date Analyzed: 12/30/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.2

CONCENTRATION UNITS: CAS NO. COMPOUND (ug/L or ug/Kg) ug/Kg Q

| | · · · · · · · · · · · · · · · · · · · | |
|--------------------------------------|---------------------------------------|-------|
| 108-95-2Phenol | 390 | 11 |
| 111-44-4bis(2-Chloroethyl)ether | 390 | |
| 95-57-82-Chlorophenol | 390 | |
| 541-73-11,3-Dichlorobenzene | 390 | |
| 106-46-71,4-Dichlorobenzene | 390 | 1 1 |
| 95-50-11,2-Dichlorobenzene | 390 | f |
| 95-48-72-Methylphenol | 390 | f I |
| 108-60-12,2'-oxybis(1-Chloropropane) | 390 | 1 1 |
| 106-44-54-Methylphenol | 390 | 1 1 |
| 621-64-7N-Nitroso-di-n-propylamine | 390 | i , ; |
| 67-72-1Hexachloroethane | 390 | |
| 98-95-3Nitrobenzene | 390 | |
| 78-59-1Isophorone | 390 | |
| 88-75-52-Nitrophenol | 390 | |
| 105-67-92,4-Dimethylphenol | 390 | |
| 111-91-1bis (2-Chloroethoxy) methane | 390 | |
| 120-83-22,4-Dichlorophenol | 390 | I |
| 120-82-11,2,4-Trichlorobenzene | 390 | 1 |
| 91-20-3Naphthalene | 390 | |
| 106-47-84-Chloroaniline | | |
| 87-68-3Hexachlorobutadiene | 390 | |
| 59-50-74-Chloro-3-methylphenol | 390 | 1 |
| 91-57-62-Methylnaphthalene | 390 | - ! |
| 77-47-4Hexachlorocyclopentadiene | 390 | |
| 88-06-22,4,6-Trichlorophenol | 390 | - 1 |
| 95-95-42,4,5-Trichlorophenol. | 980 | |
| 91-58-72-Chloronaphthalene | 390 | |
| 88-74-42-Nitroaniline | | ti l |
| 131-11-3Dimethylphthalate | 390 | · 1 |
| 208-96-8Acenaphthylene | 390 | , |
| 606-20-22,6-Dinitrotoluene | | U |
| 99-09-23-Nitroaniline | 980 | - 1 |
| 83-32-9Acenaphthene | 390 | |
| nechaphenene | | |
| | | |

JM175

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM166

Matrix: (soil/water) SOIL

Lab Sample ID: 835273

Sample wt/vol: 30.1 (g/mL) g

Lab File ID: GH035273C64

Level: (low/med) LOW

Date Received: 12/21/96

% Moisture: 15 decanted: (Y/N) N

Date Extracted:12/23/96

Concentrated Extract Volume: 500(uL) Date Analyzed: 12/30/96

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y

pH: 6.9

Number TICs found: 10

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|------------------------------|--------------------------------------------------------|--------------|-------------|-------|
| 1. | ALDOL (BC) | 4.49 | 8200 370 | JAB R |
| 3. 930-68-7 | 2-CYCLOHEXEN-1-ONE | 5.71 7.45 | 85 | |
| 4. 822-86-6 5. | CYCLOHENANE; 1,2-DICHLORO-, UNKNOWN CARBOXYLIC ACID | 14.91 | | JN |
| 6. | UNKNOWN | 16.08 | 94 | 1 |
| 7. | UNKNOWN | 17.53 | 140 | J |
| 8. | UNKNOWN ALCOHOL | 18.14 | 190 | |
| 9. | UNKNOWN | 23.21 | 180 | |
| 10. | UNKNOWN | 24.50 | 110 | 12M |
| 11 | | | | |
| 13. | | | | |
| 14. | | | | |
| 1 72. | | | | |
| 1 70. | | | | |
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| 1 70. | | | | |
| 19. | | | | |
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| 23. | | | | |
| 1 24. | | | | |
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| 26. 27. | | | | |
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| 29. | | | | |
| 30. | | | | |
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FORM I SV-TIC

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.:

SDG No.: JM166

Matrix: (soil/water) SOIL

Lab Sample ID: 835273

Sample wt/vol:

30.1 (g/mL) g

Lab File ID: GH035273C64

Level: (low/med) LOW

Date Received: 12/21/96

% Moisture: 15 decanted: (Y/N) N

Date Extracted:12/23/96

Concentrated Extract Volume: 500 (uL) Date Analyzed: 12/30/96

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.9

CONCENTRATION UNITS: CAS NO. COMPOUND (ug/L or ug/Kg) ug/Kg

| | | |
|-------------------------------------|-------------|-----|
| 51-28-52,4-Dinitrophenol | 970 | נט |
| 100-02-74-Nitrophenol | 970 | U |
| 132-64-9Dibenzofuran | 390 | , |
| 121-14-22,4-Dinitrotoluene | 390 | |
| 84-66-2Diethylphthalate | 390 | |
| 7005-72-34-Chlorophenyl-phenylether | 390 | |
| 86-73-7Fluorene | 390 | |
| 100-01-64-Nitroaniline | 970 | |
| 534-52-14,6-Dinitro-2-methylphenol | 970 | l |
| 86-30-6N-nitrosodiphenylamine (1) | 390 | |
| 101-55-34-Bromophenyl-phenylether | 390 | |
| 118-74-1Hexachlorobenzene | 390 | |
| 87-86-5Pentachlorophenol | 970 | |
| 85-01-8Phenanthrene | 390 | |
| 120-12-7Anthracene | 390 | |
| 86-74-8Carbazole | 390 | |
| 84-74-2Di-n-butylphthalate | 390 | |
| 206-44-0Fluoranthene | 390 | U |
| 129-00-0Pyrene - | 390 | ับ |
| 85-68-7Butylbenzylphthalate | 390 | |
| 91-94-13,3'-Dichlorobenzidine | 390 | |
| 56-55-3Benzo (a) anthracene | 390 | U |
| 218-01-9Chrvsene | 390 | U / |
| 117-81-7bis(2-Ethylhexyl)phthalate | 50 | J / |
| 117-84-0Di-n-octylphthalate | 390 | U |
| 205-99-2Benzo (b) fluoranthene | 390 | U |
| 207-08-9Benzo(k) fluoranthene | 390 | U |
| 50-32-8Benzo (a) pyrene | 390 | U |
| 193-39-5Indeno(1,2,3-cd)pyrene | 390 | U |
| 53-70-3Dibenzo(a,h)anthracene | 390 | U |
| 191-24-2Benzo(g,h,i)perylene | 390 | U |
| | - | |

JM175

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM166

Matrix: (soil/water) SOIL

Lab Sample ID: 835273

Sample wt/vol: 30.1 (g/mL) g

Lab File ID: GH035273C64

Level: (low/med) LOW

Date Received: 12/21/96

% Moisture: 15 decanted: (Y/N) N Date Extracted:12/23/96

Concentrated Extract Volume: 500(uL) Date Analyzed: 12/30/96

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

CONCENTRATION UNITS:

GPC Cleanup: (Y/N) Y pH: 6.9

| CAS NO. | COMPOUND (1 | ug/L or ug/Kg) ug | /Kg Q | |
|----------|---------------------|-------------------|---------|--|
| 108-95-2 | | | 390 U | |
| | bis(2-Chloroethyl) | ether | 390 U | |
| | 2-Chlorophenol | | 390 U | |
| | 1,3-Dichlorobenzene | | 390 U | |
| | 1,4-Dichlorobenzene | | 390 U | |
| | 1,2-Dichlorobenzene | ∋ | 390 U | |
| | 2-Methylphenol | | ט ספצ | |
| 108-60-1 | 2,2'-oxybis(1-Chlor | ropropane) | 390 U | |
| | 4-Methylphenol | | 390 U | |
| | N-Nitroso-di-n-prop | oylamine | 390 U | |
| | Hexachloroethane | | 390 U | |
| | Nitrobenzene | | 390 U | |
| | Isophorone | | 390 U | |
| | 2-Nitrophenol | | 390 U | |
| 105-67-9 | 2,4-Dimethylphenol | <u> </u> | 390 U | |
| | bis(2-Chloroethoxy) | methane | 390 U | |
| 120-83-2 | 2,4-Dichlorophenol_ | | 390 U | |
| | 1,2,4-Trichlorobenz | zene | 390 U | |
| | Naphthalene | · | 390 U | |
| | 4-Chloroaniline | | 390 U | |
| | Hexachlorobutadiene | | 390 U | |
| | 4-Chloro-3-methylph | | 390 U | |
| 91-57-6 | 2-Methylnaphthalene | 2 | 390 U | |
| 77-47-4 | Hexachlorocyclopent | adiene | 390 U | |
| 88-06-2 | 2,4,6-Trichloropher | nol | 390 U | |
| | 2,4,5-Trichloropher | | 970 U | |
| 91-58-7 | 2-Chloronaphthalene | 2 | 390 U | |
| 88-74-4 | 2-Nitroaniline | | 970 U | |
| 131-11-3 | Dimethylphthalate | | 390 บ | |
| 208-96-8 | Acenaphthylene | | 390 U | |
| | 2,6-Dinitrotoluene | | 390 U | |
| | 3-Nitroaniline | | 970 U | |
| | Acenaphthene | | 390 U | |
| | • | | | |

| JM174 | | |
|-------|---|--|
| | - | |

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.:

SDG No.: JM166

Matrix: (soil/water) SOIL

Lab Sample ID: 835272

Sample wt/vol: 30.0 (g/mL) g

Lab File ID: GH035272C64

Level: (low/med) LOW

Date Received: 12/21/96

% Moisture: 15

decanted: (Y/N) N

Date Extracted:12/23/96

Concentrated Extract Volume: 500(uL)

Date Analyzed: 12/30/96

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y

pH: 7.0

CONCENTRATION UNITS: Number TICs found: 5 (ug/L or ug/Kg) ug/Kg

| 616 177 777 | | | DOT 0015 | |
|------------------------|-----------------------------|-------|-----------------------------------------|-------|
| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | |
| | | 1 | ======================================= | |
| 1. | ALDOL (BC) | 4.49 | 5600 | JAB K |
| 2. | UNINOWN (BC) | 4.72 | | |
| 3. 822 86 6 | CYCLOHEXANE, 1,2 DIGILORO , | 7.45 | 110 | |
| 4. | UNKNOWN . | 17.53 | 480 | Jh' |
| 5. | UNKNOWN ALCOHOL | 18.15 | . 83 | Jh |
| 6. | | | : | |
| 7. | | | | |
| 8. | | | | |
| 9. | | | - | |
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FORM I SV-TIC

Unvironmen PLM03.0

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

JM174

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM166

Matrix: (soil/water) SOIL Lab Sample ID: 835272

Sample wt/vol: 30.0 (g/mL) g Lab File ID: GH035272C64

Level: (low/med) LOW Date Received: 12/21/96

% Moisture: 15 decanted: (Y/N) N Date Extracted:12/23/96

Concentrated Extract Volume: 500(uL) Date Analyzed: 12/30/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg Q

51-28-5-----2,4-Dinitrophenol 980 UJ
100-02-7----4-Nitrophenol 980 U
132-64-9----Dibenzofuran 390 U
121-14-2----2,4-Dinitrotoluene 390 U

121-14-2----2,4-Dinitrotoluene 84-66-2-----Diethylphthalate 390 U 7005-72-3----4-Chlorophenyl-phenylether 390 U 86-73-7-----Fluorene 390 U 100-01-6----4-Nitroaniline LU 086 534-52-1------4,6-Dinitro-2-methylphenol___ 980 U 86-30-6----N-nitrosodiphenylamine (1) 390 U 390 U 101-55-3-----4-Bromophenvl-phenylether 390 U 118-74-1----Hexachlorobenzene 980 U \$7-86-5-----Pentachlorophenol 85-01-S-----Phenanthrene 390 U 120-12-7-----Anthracene 390 U 86-74-8-----Carbazole 390 U 84-74-2-----Di-n-butylphthalate 390 U 206-44-0-----Fluoranthene 390 U 129-00-0-----Pyrene -390 U 85-68-7-----Butylbenzylphthalate 390 U 91-94-1-----3,3'-Dichlorobenzidine 790 LT 390 U 56-55-3------Benzo (a) anthracene 390 U 61 J 218-01-9-----Chrysene 117-81-7-----bis(2-Ethylhexyl)phthalate 390 U 117-S4-0-----Di-n-octylphthalate 205-99-2-----Benzo (b) fluoranthene 390 U 207-08-9-----Benzo(k) fluoranthene 390 U 50-32-8-----Benzo (a) pyrene 390 U 193-39-5-----Indeno(1,2,3-cd)pyrene 390 U 53-70-3-----Dibenzo(a,h)anthracene 390 U

(1) - Cannot be separated from Diphenylamine

191-24-2-----Benzo(g,h,i)perylene

390 U

1B SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

JM174

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.:

SDG No.: JM166.

Matrix: (soil/water) SOIL

Lab Sample ID: 835272

Sample wt/vol:

30.0 (g/mL) g

Lab File ID:

GH035272C64

Level: (low/med) LOW

Date Received: 12/21/96

% Moisture: 15

decanted: (Y/N) N

Date Extracted: 12/23/96.

Concentrated Extract Volume:

500 (uL)

Date Analyzed: 12/30/96

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup:

(Y/N) Y

pH: 7.0

CONCENTRATION UNITS:

CAS NO.

COMPOUND

(ug/L or ug/Kg) ug/Kg

Q

| | | · | , |
|----------|------------------------------|-------|--------------|
| 108-95-2 | Phenol | 390 | ט |
| 111-44-4 | bis(2-Chloroethyl)ether | 390 | טו |
| 95-57-8 | 2-Chlorophenol | 390 | ט |
| | 1,3-Dichlorobenzene | 390 | U |
| | 1,4-Dichlorobenzene | 390 | U |
| | 1,2-Dichlorobenzene | 390 | U |
| | 2-Methylphenol | 390 | U |
| | 2,2'-oxybis(1-Chloropropane) | 390 | Ū |
| 106-44-5 | 4-Methylphenol | 390 | 4 |
| | N-Nitroso-di-n-propylamine | 390 | U |
| | Hexachloroethane | 390 | ט |
| | Nitrobenzene | .390 | U |
| | Isophorone | 390 | U |
| | 2-Nitrophenol | 390 | |
| | 2,4-Dimethylphenol | 390 | Ū |
| | bis(2-Chloroethoxy) methane | 390 | U |
| | 2,4-Dichlorophenol | 390 | 1 |
| | 1,2,4-Trichlorobenzene | 390 | |
| | Naphthalene | . 390 | U |
| | 4-Chloroaniline | 390 | lυ |
| | Hexachlorobutadiene | 390 | |
| | 4-Chloro-3-methylphenol | 390 | U |
| | 2-Methylnaphthalene | 390 | U |
| | Hexachlorocyclopentadiene | 390 | Ū |
| | 2,4,6-Trichlorophenol | 390 | U |
| | 2,4,5-Trichlorophenol | 980 | U |
| | 2-Chloronaphthalene | 390 | Ū |
| | 2-Nitroaniline | 980 | U |
| | Dimethylphthalate | 390 | |
| | Acenaphthylene | 390 | , |
| | 2,6-Dinitrotoluene | 390 | 1 - |
| | 3-Nitroaniline | 980 | |
| | Acenaphthene | 390 | (|
| - | | | |
| | | | |

EPA SAMPLE NO.

JM173

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.:

SDG No.: JM166

Matrix: (soil/water) SOIL

Lab Sample ID: 835271

Sample wt/vol: 30.0 (g/mL) g

Lab File ID: GH035271C64

Level: (low/med) LOW Date Received: 12/21/96

% Moisture: 13 decanted: (Y/N) N

Date Extracted:12/23/96

Concentrated Extract Volume: 500(uL)

Date Analyzed: 12/30/96

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.5

Number TICs found: 6

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|-------------------|------------------------------|----------------|------------|-----------|
| 1. | ALDOL (BC) UNKNOWN (BC) | ======= | 6100 | JAD R |
| 3. 57-10-3 4. | HEXADECANOIC ACID UNKNOWN | 14.91 17.53 | 330 280 | UN JAJ |
| 5. 6. 7. | UNKNOWN ALCOHOL | 18.14 21.31 | 170 100 | |
| 8. 9. | | | | |
| 10. | | | · | |
| 13. 14. 15. | | | | |
| 17. | | | | |
| 18. 19. 20. | | | | |
| 22. | · · | | | |
| 23. 24. 25. | | | | |
| 25. 27. 23. | | | | |
| 29. 30. | | | | |

OLMO3.0

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.:

SDG No.: JM166

Matrix: (soil/water) SOIL

Lab Sample ID: 835271

Sample wt/vol: 30.0 (g/mL) g

Lab File ID: GH035271C64

Level: (low/med) LOW

Date Received: 12/21/96

% Moisture: 13 decanted: (Y/N) N

Date Extracted:12/23/96

Concentrated Extract Volume: 500 (uL)

Date Analyzed: 12/30/96

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.5

CONCENTRATION UNITS:

CAS NO.

COMPOUND

(ug/L or ug/Kg) ug/Kg

| | · · · · · · · · · · · · · · · · · · · | |
|-------------------------------------|---------------------------------------|-----|
| 51-28-52,4-Dinitrophenol | 950 | שו |
| 100-02-74-Nitrophenol | 950 | |
| 132-64-9Dibenzofuran | 380 | U / |
| 121-14-22,4-Dinitrotoluene | 47 | |
| 84-66-2Diethylphthalate | 380 | ı |
| 7005-72-34-Chlorophenyl-phenylether | 380 | |
| 86-73-7Fluorene | 380 | |
| 100-01-64-Nitroaniline | 950 | i |
| 534-52-14,6-Dinitro-2-methylphenol | 950 | _ |
| 86-30-6N-nitrosodiphenylamine (1) | 380 | |
| 101-55-34-Bromophenyl-phenylether | 380 | ľ |
| 118-74-1Hexachlorobenzene | 380 | 1 |
| 87-86-5Pentachlorophenol | 950 | l . |
| 85-01-8Phenanthrene | 380 | |
| 120-12-7Anthracene | 380 | : |
| 86-74-8Carbazole | 380 | |
| 84-74-2Di-n-butylphthalate | 380 | |
| 206-44-0Fluoranthene | 380 | |
| 129-00-0Pyrene - | 54 | |
| 85-68-7Butylbenzylphthalate | 380 | . r |
| 91-94-13,3'-Dichlorobenzidine | 380 | |
| 56-55-3Benzo (a) anthracene | 380 | i |
| 218-01-9Chrvsene | 380 | υ. |
| 117-S1-7bis(2-Ethylhexyl)phthalate | 110 | |
| 117-84-0Di-n-octylphthalate | 380 | |
| 205-99-2Benzo(b) fluoranthene | 380 | |
| 207-08-9Benzo(k) fluoranthene | 380 | |
| 50-32-8Benzo (a) pyrene | 380 | _ |
| 193-39-5Indeno (1, 2, 3-cd) pyrene | 380 | |
| 53-70-3Dibenzo (a, h) anthracene | 380 | |
| 191-24-2Benzo(g,h,i)perylene | 380 | |
| | | |
| | · | |

(1) - Cannot be separated from Diphenylamine

JM173

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

GPC Cleanup: (Y/N) Y pH: 7.5

SDG No.: JM166 Lab Code: COMPU Case No.: 25253 SAS No.:

Lab Sample ID: 835271 Matrix: (soil/water) SOIL

Lab File ID: GH035271C64 Sample wt/vol: 30.0 (g/mL) g

Date Received: 12/21/96 Level: (low/med) LOW

% Moisture: 13 decanted: (Y/N) N Date Extracted: 12/23/96

Concentrated Extract Volume: 500 (uL) Date Analyzed: 12/30/96

Dilution Factor: 1.0 Injection Volume: 2.0(uL)

CONCENTRATION UNITS: CAS NO. COMPOUND (ua/L or ua/Ka) ua/Ka O

| CAS NO. | COMPOUND (ug/L or ug) | rkg) ug/kg Q |
|----------|------------------------------|-------------------|
| 108-95-2 | Phenol | 74 J [/] |
| 111-44-4 | bis(2-Chloroethyl)ether | 380 U . |
| 95-57-8 | 2-Chlorophenol | 58 J |
| | 1,3-Dichlorobenzene | 380 U |
| | 1,4-Dichlorobenzene | 380 U |
| 95-50-1 | 1,2-Dichlorobenzene | 380 U |
| | 2-Methylphenol | 380 U |
| 108-60-1 | 2,2'-oxybis(1-Chloropropane) | 380 U |
| 106-44-5 | 4-Methylphenol | 380 U , |
| 621-64-7 | N-Nitroso-di-n-propylamine | 41 5 |
| 67.72-1 | Hexachloroethane | 380 U |
| 09-05-3 | Nitrobenzene | 380 U |
| | Isophorone | 380 U |
| 70-33-1 | 2-Nitrophenol | 380 U |
| | 2,4-Dimethylphenol | 380 U |
| | bis(2-Chloroethoxy)methane | 380 U |
| | | |
| | 2,4-Dichlorophenol | 380 U |
| | 1,2,4-Trichlorobenzene | 39 J / |
| 91-20-3 | Naphthalene | . 380 U |
| | 4-Chloroaniline | 380 U |
| | Hexachlorobutadiene | . 380 U |
| | 4-Chloro-3-methylphenol | 64 J / |
| | 2-Methylnaphthalene | 380 U |
| | Hexachlorocyclopentadiene | 380 U |
| | 2,4,6-Trichlorophenol | 380 U |
| | 2,4,5-Trichlorophenol | 950 U |
| | 2-Chloronaphthalene | 380 U |
| | 2-Nitroaniline | 950 U |
| 131-11-3 | Dimethylphthalate | 380 U |
| 208-96-8 | Acenaphthylene | 380 U |
| 606-20-2 | 2,6-Dinitrotoluene | 380 U |
| 99-09-2 | 3-Nitroaniline | 950 U , |
| 83-32-9 | Acenaphthene | 48 J · |
| | | |
| | | · |

OLM03.0

| EPA | SAMPLE | NO. |
|-----|--------|-----|
| | | |

| Lab | Name: | COMPUCHEM | ENV. | CORP. |
|-------|------------|-----------|----------|-------|
| كنانا | * 101110 . | | 1-44 V . | |

Contract: 68D50009

JM172

Lab Code: COMPU

Case No.: 25253 SAS No.:

SDG No.: JM166

Matrix: (soil/water) SOIL

Lab Sample ID: 835270

Sample wt/vol:

30.1 (g/mL) g

Lab File ID:

GH035270A64

Level: (low/med)

Date Received: 12/21/96

% Moisture: 9

LOW

decanted: (Y/N) N .

Date Extracted:12/23/96

Concentrated Extract Volume:

500 (uL)

Date Analyzed: 12/30/96

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.8

CONCENTRATION UNITS: Number TICs found: 4 (ug/L or ug/Kg) ug/Kg

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | . ~ . |
|---------------------------------------------------------------------------------------------------------|---------------|----|-------------|-----------------------|
| 1. 2. 3. 930-68-7 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. | • | ī | 6100 390 | JAD R JB R NJ 1 |
| 26. 27. 28. 29. | | | | · . |

JM172

Lab Name: COMPUCHEM ENV. CORP. . Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM166

Matrix: (soil/water) SOIL Lab Sample ID: 835270

Sample wt/vol: 30.1 (g/mL) g Lab File ID: GH035270A64

Level: (low/med) LOW Date Received: 12/21/96

% Moisture: 9 decanted: (Y/N) N Date Extracted:12/23/96

Concentrated Extract Volume: 500(uL) Date Analyzed: 12/30/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.8

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/Kg Q

| | | , |
|-------------------------------------|--------------|--------------|
| 51-28-52,4-Dinitrophenol | 910 | 111 |
| 100-02-74-Nitrophenol | - 910 | _ |
| 132-64-9Dibenzofuran | 360 | 1 |
| 121-14-22,4-Dinitrotoluene | 360 | |
| 84-66-2Diethylphthalate | 360 | 1 |
| 7005-72-34-Chlorophenyl-phenylether | - 360 360 | 1 |
| 86-73-7Fluorene | 360 | 1 - |
| 100-01-64-Nitroaniline | 910 | 1 |
| 534-52-14,6-Dinitro-2-methylphenol | 910 | |
| 36-30-6N-nitrosodiphenylamine (1) | 360 | |
| 101-55-34-Bromophenyl-phenylether | 360 | |
| 118-74-1Hexachlorobenzene | 360 | |
| 37-86-5Pentachlorophenol | 910 | l . |
| 35-01-SPhenanthrene | 360 | t . |
| 120-12-7Anthracene | 360 | |
| 36-74-8Carbazole | 360 | |
| 34-74-2Di-n-butylphthalate | 360 | |
| 206-44-0Fluoranthene | 360 | ľ |
| 129-00-0Pyrene - | 360 | 1 |
| 35-68-7Butylbenzylphthalate | 360 | • |
| 91-94-13,3'-Dichlorobenzidine | 360 | |
| 66-55-3Benzo(a) anthracene | 360 | |
| 218-01-9Chrvsene | 360 | |
| 17-81-7bis(2-Ethylhexyl)phthalate | | |
| 17-84-0Di-n-octylphthalate | 360 | |
| 205-99-2Benzo (b) fluoranthene | 360 | |
| 207-08-9Benzo(k) fluoranthene | 360 | ì |
| 50-32-8Benzo (a) pyrene | 360 | |
| 193-39-5Indeno(1,2,3-cd)pyrene | 360 | ι. |
| 53-70-3Dibenzo (a, h) anthracene | 360 | [|
| 191-24-2Benzo(g,h,i)perylene | 360 | 1 |
| | - | 1 |

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM166

Matrix: (soil/water) SOIL

Lab Sample ID: 835270

Sample wt/vol: 30.1 (g/mL) g Lab File ID: GH035270A64

Level: (low/med) LOW

Date Received: 12/21/96

% Moisture: 9 decanted: (Y/N) N

Date Extracted:12/23/96

Concentrated Extract Volume: 500 (uL) Date Analyzed: 12/30/96

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.8

CONCENTRATION UNITS:

CAS NO.

COMPOUND

(ug/L or ug/Kg) ug/Kg

Q٠

| • | | | |
|----------|------------------------------|-------|-----|
| 108-95-2 | Phanol | 360 | U |
| | bis(2-Chloroethyl)ether | 360 | |
| | 2-Chlorophenol | 360 | ľ |
| | 1,3-Dichlorobenzene | 360 | ľ |
| | 1,4-Dichlorobenzene | 360 | 4 |
| | 1,2-Dichlorobenzene | 360 | i . |
| | 2-Methylphenol | 360 | |
| | 2,2'-oxybis(1-Chloropropane) | 360 | 1 |
| 106-44-5 | 4-Methylphenol | 360 | 1 |
| | N-Nitroso-di-n-propylamine | 360 | |
| | Hexachloroethane | 360 | U |
| | Nitrobenzene | . 360 | U |
| 78-59-1 | Isophorone | , 360 | • |
| | 2-Nitrophenol | 360 | U |
| | 2,4-Dimethylphenol | 360 | U |
| 111-91-1 | bis(2-Chloroethoxy)methane | 360 | U |
| | 2,4-Dichlorophenol | 360 | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 360 | U |
| | Naphthalene | 360 | U |
| | 4-Chloroaniline | · 360 | |
| | Hexachlorobutadiene | 360 | U |
| | 4-Chloro-3-methylphenol | 360 | |
| 91-57-6 | 2-Methylnaphthalene | 360 | |
| | Hexachlorocyclopentadiene | 360 | |
| | 2,4,6-Trichlorophenol | 360 | |
| | 2,4,5-Trichlorophenol | 910 | |
| | 2-Chloronaphthalene | 360 | |
| | 2-Nitroaniline | 910 | |
| | Dimethylphthalate | 360 | |
| | Acenaphthylene | 360 | l . |
| | 2,6-Dinitrotoluene | 360 | l |
| | 3-Nitroaniline | 910 | |
| 83-32-9 | Acenaphthene | 360 | Ŭ |
| | | |] |

JM171

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM166

Matrix: (soil/water) SOIL

Lab Sample ID: 835269

Sample wt/vol:

30.0 (g/mL) g

Lab File ID: GH035269A64

Level: (low/med) LOW

Date Received: 12/21/96

% Moisture: 11 decanted: (Y/N) N

Date Extracted: 12/23/96

Concentrated Extract Volume: 500(uL)

Date Analyzed: 12/30/96

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y

pH: 6.5

CONCENTRATION UNITS: Number TICs found: 5 (ug/L or ug/Kg) ug/Kg

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|----|-------------------|------------------|
| 1. 2. 3. 822-67-3 4. 930-68-7 5. 822-86-6 6. 7. | ALDOL (BC) UNIGNOWN (BC) 2-CYCLOHEXEN-1-OL 2-CYCLOHEXEN-1-ONE CYCLOHEXANE, 1,2 DICILORO, | | 5200 500 95 | JD R NJ NJ |
| 9. 10. 11. 12. 13. 14. 15. 16. | | | | |
| 18. 19. 20. 21. 22. 23. 24. | | | | |
| 25. 26. 27. 28. 29. 30. | | | | |

FORM I SV-TIC

JM171

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM166

Matrix: (soil/water) SOIL

Lab Sample ID: 835269

Sample wt/vol: 30.0 (g/mL) g

Lab File ID:

GH035269A64

Level: (low/med)

Date Received: 12/21/96

% Moisture: 11 decanted: (Y/N) N

Date Extracted:12/23/96

Concentrated Extract Volume: 500(uL) Date Analyzed: 12/30/96

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.5

CONCENTRATION UNITS:

CAS NO.

COMPOUND

(ug/L or ug/Kg) ug/Kg

| | | | т—— |
|-------------|------------------------------|-----|-----|
| 51-28-5 | 2,4-Dinitrophenol | 930 | נט |
| | 4-Nitrophenol | 930 | U |
| | Dibenzofuran | 370 | Ū |
| | 2,4-Dinitrotoluene | 370 | U |
| | Diethylphthalate | 370 | 1 |
| | 4-Chlorophenyl-phenylether | 370 | 4 |
| | Fluorene | 370 | 1 |
| | 4-Nitroaniline | 930 | |
| | 4,6-Dinitro-2-methylphenol | 930 | |
| | N-nitrosodiphenylamine (1) | 370 | |
| | 4-Bromophenyl-phenylether | 370 | |
| | Hexachlorobenzene | 370 | |
| | Pentachlorophenol | 930 | |
| | Phenanthrene | 370 | - |
| | Anthracene | 370 | |
| | Carbazole | 370 | |
| | | 1 . | |
| | Di-n-butylphthalate | 370 | |
| | Fluoranthene | 370 | |
| 129-00-0 | | 370 | |
| | Butylbenzylphthalate | 370 | |
| | 3,3'-Dichlorobenzidine | 370 | |
| | Benzo (a) anthracene | 370 | |
| 218-01-9 | | 370 | |
| | bis(2-Ethylhexyl)phthalate | 67 | |
| | Di-n-octylphthalate | 370 | - |
| | Benzo(b)fluoranthene | 370 | - |
| | Benzo(k)fluoranthene | 370 | |
| | Benzo(a)pyrene | 370 | · - |
| | Indeno(1,2,3-cd)pyrene | 370 | |
| | Dibenzo(a,h)anthracene | 370 | |
| 191-24-2 | Benzo(g,h,i)perylene | 370 | U |
| | | | |
| - Cannot be | separated from Diphenylamine | | |
| | | | |

FORM I SV-2

d'environment OLM03.0

JM171

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.:

SDG No.: JM166

Matrix: (soil/water) SOIL

Lab Sample ID: 835269

Sample wt/vol: 30.0 (g/mL) g

Lab File ID: GH035269A64

Level: (low/med) LOW

Date Received: 12/21/96

% Moisture: 11 decanted: (Y/N) N

Date Extracted:12/23/96

Concentrated Extract Volume: 500(uL)

Date Analyzed: 12/30/96

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

CONCENTRATION UNITS:

GPC Cleanup: (Y/N) Y pH: 6.5

| CAS NO. | COMPOUND (ug/L or ug, | /Kg) ug/Kg |
|----------|------------------------------|------------|
| 108-95-2 | | 370 U |
| | bis(2-Chloroethyl)ether | 370 Ŭ |
| | 2-Chlorophenol | . 370 ប |
| | 1,3-Dichlorobenzene | 370 บ |
| | 1,4-Dichlorobenzene | . 370 บ |
| | 1,2-Dichlorobenzene | 370 ប |
| | 2-Methylphenol . | 370 เบ |
| 108-60-1 | 2,2'-oxybis(1-Chloropropane) | ์ 370 บ |
| | 4-Methylphenol | 370 บ |
| 621-64-7 | N-Nitroso-di-n-propylamine | 370 บ |
| | Hexachloroethane | 370 บ |
| | Nitrobenzene | 370 บ |
| | Isophorone | 370 บ |
| 88-75-5 | 2-Nitrophenol | 370 บั |
| 105-67-9 | 2,4-Dimethylphenol | 370 บ |
| | bis(2-Chloroethoxy)methane | 370 น |
| | 2,4-Dichlorophenol | 370 U |
| | 1,2,4-Trichlorobenzene | 370 บ |
| 91-20-3 | Naphthalene | 370 U |
| | 4-Chloroaniline | 370 บ |
| | Hexachlorobutadiene | 370 U |
| | 4-Chloro-3-methylphenol | . 370 U |
| | 2-Methylnaphthalene | 370 บ |
| | Hexachlorocyclopentadiene | 370 บ |
| | 2,4,6-Trichlorophenol | 370 บ |
| | 2,4,5-Trichlorophenol | 930 U |
| | 2-Chloronaphthalene | . 370 เบ |
| | 2-Nitroaniline | 930 U |
| | Dimethylphthalate | 370 บ |
| | Acenaphthylene | 370 บ |
| | 2,6-Dinitrotoluene | 370 บ |
| | 3-Nitroaniline | 930 U |
| 83-32-9 | Acenaphthene | 370/0 |
| | | |
| | | <u> </u> |

FORM I SV-1

OLM03.0

JM170

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM166

Matrix: (soil/water) SOIL

Lab Sample ID: 835268

Sample wt/vol: 30.1 (g/mL) g

Lab File ID: GH035268A64

Level: (low/med) LOW

Date Received: 12/21/96

% Moisture: 9 decanted: (Y/N) N Date Extracted:12/23/96

Concentrated Extract Volume: 500(uL) Date Analyzed: 12/30/96

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.9

Number TICs found: 8

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

| | <u> </u> | | , | |
|------------------------|----------------------------------------------------------|-------------|-------------|-------|
| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
| _=========== | | ====== | ========= | ===== |
| 1. | ALDOL (BC) | 4.41 | | JAD (|
| 2. | UNICOUN (BC) | 4.64 | 430 | JB i |
| 3. 822-67-3 | 2-CYCLOHEXEN-1-OL | 5.06 | . 80 | NJ C |
| | 2-CYCLOHEXEN-1-ONE | | | |
| 1 3-0 00 . | | 5.63 | | NJ |
| 5. 822-86-6 | CYCLOIENANE, 1,2 DICILORO, | 7.37 | | NJB Ł |
| 6. | UNKNOWN CARBOXYLIC ACID | 14.83 | 76 | Jλ |
| 7. | UNKNOWN | 17.45 | 150 | |
| 8. | UNKNOWN | | 130 | J. |
| | UNKNOWN | 23.01 | 130 | J.₩ |
| 9 | | | | |
| 10. | | | | |
| 11. | | | | |
| 12 | | | | |
| 12. | | | | |
| 13. | | | | |
| 7.4. | | | | |
| 15. | , | | | |
| 16. | | | | |
| 17 | | | | |
| 17. | | | | |
| 18. | | | | |
| <u> 19.</u> | | | | |
| 20. | | | · | |
| 21. | | | | |
| 22 | | | | |
| 22. | | | | |
| 23. | | | | |
| 24. | | | | |
| 25. | | , | , | |
| 26 | | | | |
| 27 | | | | |
| 28. | | | | |
| | | | | |
| 29 | | <u></u> | | |
| 30. | | | | |
| | | [| | |
| | | | | |

ecology and environment OLM03.0

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

JM170

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

GPC Cleanup: (Y/N) Y pH: 6.9

Case No.: 25253 SAS No.: SDG No.: JM166 Lab Code: COMPU

Matrix: (soil/water) SOIL Lab Sample ID: 835268

Sample wt/vol: 30.1 (g/mL) g Lab File ID: GH035268A64

Date Received: 12/21/96 Level: (low/med)

decanted: (Y/N) N Date Extracted:12/23/96 % Moisture: 9

Date Analyzed: 12/30/96 Concentrated Extract Volume: 500 (址)

Injection Volume: 2.0(uL) Dilution Factor: 1.0

CONCENTRATION UNITS: (ug/I or ug/Kg) ug/Kg CAS NO COMPOIND

| | CAS NO. | COMPOUND | (ug/L or | ug/kg) | ug/kg | Q |
|-----|--------------------|----------------------------------------|-------------|------------------|--------------|-----|
| | 51-28-5 | 2,4-Dinitrophenol | L | | 910 | עטו |
| | | 4-Nitrophenol | | | 910 | שו |
| | 132-64-9 | Dibenzofuran | | | 360 | |
| | 121-14-2 | 2,4-Dinitrotoluer | 1e | | 360 | טו |
| | | Diethylphthalate | | | 360 | |
| | | 4-Chlorophenyl-pł | nenylether | | 360 | ž. |
| | 86-73-7 | | • | — | 360 | |
| | | 4-Nitroaniline | | | | עט |
| | | 4,6-Dinitro-2-met | hvlphenol | | 910 | |
| | 86-30-6 | N-nitrosodiphenyl | amine (1) | | 360 | |
| 1 | 101-55-3 | 4-Bromophenyl-phe | envlether | | 360 | |
| | | Hexachlorobenzene | | | 360 | |
| | | Pentachlorophenol | | | · 910 | |
| | 85-01-8 | | | | 360 | |
| | 120-12-7- | | | | 360 | |
| | 86-74-8- | | | | 360 | |
| | | -Di-n-butylphthala | ate. | | 360 | 1 |
| | 206-44-0 | | | | 360 | , |
| | 129-00-0 | | | · | 360 | |
| | | -Butylbenzylphthal | ate | | 360 | 1 |
| , | 03-00 7 01-04-7 | 3,3'-Dichlorobenz | idina | | | Lū |
| - | 56-55-3 | Benzo (a) anthracen | .101116 | | ´ 360 | |
| | 218-01-9 | | <u> </u> | 1 | 360 | |
| | | -bis(2-Ethylhexyl) | phthalate | | 56 | |
| | | Dis(2-Ethythekyl) Di-n-octylphthala | | - - | 360 | |
| | | -Benzo (b) fluoranth | | | 360 | |
| | | -Benzo(b)fluoranth | | | 360 | 3 |
| | | | ierre | ' . | | , |
| | | Benzo (a) pyrene | N December | | 360 | 1 |
| : | LJ3-3Y-5 | Indeno (1, 2, 3-cd) p | oltene | | 360 | |
| | | Dibenzo(a,h)anthr | | | 360 | 1 |
|] - | 191-24-2 | Benzo(g,h,i)peryl | ene | | 360 | ١١٥ |
| 1 | - Cannot be es | eparated from Diphe | envlamine | \ | - | .\ |

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU

Case No.: 25253 SAS No.:

SDG No.: JM166

Matrix: (soil/water) SOIL

Lab Sample ID: 835268

Sample wt/vol:

30.1 (g/mL) g

Lab File ID: GH035268A64

Level: (low/med)

LOW

Date Received: 12/21/96

% Moisture: 9

decanted: (Y/N) N Date Extracted: 12/23/96

Concentrated Extract Volume: 500(uL)

Date Analyzed: 12/30/96

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.9

CONCENTRATION UNITS: CAS NO. · COMPOUND

(ug/L or ug/Kq) ug/Kq

| , | | |
|--------------------------------------|-------------|-----|
| 108-95-2Phenol | 360 | ט |
| 111-44-4bis(2-Chloroethyl)ether | 360 | |
| 95-57-82-Chlorophenol | 360 | 1 |
| 541-73-11,3-Dichlorobenzene | 360 | Ū |
| 106-46-71,4-Dichlorobenzene | 360 | ı |
| 95-50-11, 2-Dichlorobenzene | 360 | Ū |
| 95-48-72-Methylphenol | 360 | |
| 108-60-12,2'-oxybis(1-Chloropropane) | 360 | |
| 106-44-54-Methylphenol | 360 | |
| 621-64-7N-Nitroso-di-n-propylamine | 360 | U |
| 67-72-1Hexachloroethane | 360 | U |
| 98-95-3Nitrobenzene | 360 | U |
| 78-59-1Isophorone | 360 | U |
| 88-75-52-Nitrophenol | 360 | U |
| 105-67-92,4-Dimethylphenol | 360 | U |
| 111-91-1bis(2-Chloroethoxy)methane | 360 | U |
| 120-83-22,4-Dichlorophenol | 360 | U |
| 120-82-11,2,4-Trichlorobenzene | 360 | U |
| 91-20-3Naphthalene | 360 | U |
| 106-47-84-Chloroaniline | 360 | U |
| 87-68-3Hexachlorobutadiene | 360 | U |
| 59-50-74-Chloro-3-methylphenol | 360 | U |
| 91-57-62-Methylnaphthalene | 360 | U |
| 77-47-4Hexachlorocyclopentadiene | 360 | Ū |
| SS-06-22,4,6-Trichlorophenol | 360 | U |
| 95-95-42,4,5-Trichlorophenol | 910 | U |
| 91-58-72-Chloronaphthalene | 360 | U |
| 88-74-42-Nitroaniline | 910 | U . |
| 131-11-3Dimethylphthalate | 360 | |
| 20S-96-8Acenaphthylene | 1 | |
| 606-20-22,6-Dinitrotoluene | 360 | U |
| 99-09-23-Nitroaniline | ,1 | U |
| 83-32-9Acenaphthene | 360 | U |
| | | |

| | JM168 | |
|---|-------|--|
| • | | |

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM166

Matrix: (soil/water) SOIL

Lab Sample ID: 835267

Sample wt/vol: 30.2 (g/mL) g

Lab File ID: GH035267C64

Level: (low/med) LOW

Date Received: 12/21/96

% Moisture: 9 decanted: (Y/N) N Date Extracted:12/23/96

Concentrated Extract Volume: 500(uL) Date Analyzed: 12/30/96

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.0

Number TICs found: 5

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | 1 - 1 |
|-------------------------------------------------------------|---------------------------------------------------------------------------|---------------------------------------|---------------------------------|---------------------------|
| 1. 2. 3. 822-67-3 4. 930-68-7 5. 6. | ALDOL (BC) UNIGNOWN (BC) 2-CYCLOHEXEN-1-OL 2-CYCLOHEXEN-1-ONE UNKNOWN | 4.49 4.71 5.14 5.71 17.52 | 7100 470 84 110 530 | JAB K JB R NJ NJ |
| 8. 9. 10. 11. 12. 13. 14. 15. | | | | |
| 17. 18. 19. 20. 21. 22. 23. 24. 25. | <u>-</u> | | | |
| 26. 27. 28. 29. | | | | |

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU

Case No.: 25253 SAS No.:

SDG No.: JM166

Matrix: (soil/water) SOIL

Lab Sample ID: 835267

Sample wt/vol: 30.2 (g/mL) g

Lab File ID: GH035267C64

Level: (low/med) LOW

Date Received: 12/21/96

% Moisture: 9 decanted: (Y/N) N

Date Extracted:12/23/96

Concentrated Extract Volume:

500 (uL) Date Analyzed: 12/30/96

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.0

CONCENTRATION UNITS:

CAS NO.

COMPOUND

(ug/L or ug/Kg) ug/Kg

Q

| | | , | _ |
|-----------|----------------------------|----------|---------------|
| 51-28-5 | 2,4-Dinitrophenol | 910 | ן מן |
| | 4-Nitrophenol | 910 | 1 |
| | Dibenzofuran | 360 | _ |
| | 2,4-Dinitrotoluene | 360 | ; |
| | Diethylphthalate | 360 | 1 |
| | 4-Chlorophenyl-phenylether | 360 | |
| | Fluorene | 360 | Į. |
| | 4-Nitroaniline | 910 | (ט |
| 534-52-1- | 4,6-Dinitro-2-methylphenol | 910 | |
| | N-nitrosodiphenylamine (1) | 360 | U |
| | 4-Bromophenyl-phenylether | 360 | 1 |
| | Hexachlorobenzene | 360 | ับ |
| 87-86-5 | Pentachlorophenol | 910 | U |
| 85-01-8 | Phenanthrene | 360 | U |
| 120-12-7- | Anthracene | 360 | U |
| 86-74-8 | Carbazole | 360 | U |
| 84-74-2 | Di-n-butylphthalate | 360 | U |
| 206-44-0- | Fluoranthene | 360 | U |
| 129-00-0- | Pyrene | 360 | U |
| 85-68-7 | Butylbenzylphthalate | 360 | U |
| 91-94-1 | 3,3'-Dichlorobenzidine | 360 | υJ |
| 56-55-3 | Benzo (a) anthracene | 360 | Ū |
| | Chrysene | · 360 | U |
| 117-81-7- | bis(2-Ethylhexyl)phthalate | 49 | J |
| | Di-n-octylphthalate | 360 | Ŭ |
| | Benzo (b) fluoranthene | 360 | U |
| | Benzo(k)fluoranthene | 360 | U |
| | Benzo(a)pyrene | 360 | U |
| | Indeno (1, 2, 3-cd) pyrene | . 360 | 1 |
| | Dibenzo(a,h)anthracene | 360 | U |
| 191-24-2- | Benzo(g,h,i)perylene | 360 | Ū |
| | | <u> </u> | <u> </u> |
| | | | |

(i) - Cannot be separated from Diphenylamine

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM166

Matrix: (soil/water) SOIL Lab Sample ID: 835267

Sample wt/vol: 30.2 (g/mL) g Lab File ID: GH035267C64

Level: (low/med) LOW Date Received: 12/21/96

% Moisture: 9 decanted: (Y/N) N Date Extracted:12/23/96

Concentrated Extract Volume: 500(uL) Date Analyzed: 12/30/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

Trijection volume. 2.0 (dd) Dildton ractor. 1.0

GPC Cleanup: (Y/N) Y pH: 7.0

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/Kg O

| CAS NO. | COMPOUND (ug/L or ug | /Kg) ug/Kg | Q |
|----------|------------------------------|------------|-----|
| 108-95-2 | Phenol | 360 | IT |
| | bis(2-Chloroethyl)ether | 360 | 1 1 |
| 05_57_8 | 2-Chlorophenol | 360 | 1 1 |
| 541-73-1 | 1,3-Dichlorobenzene | 360 | |
| 106-46-7 | 1,4-Dichlorobenzene | 360 | 1. |
| 95-50-1 | 1,2-Dichlorobenzene | 360 | |
| 95-48-7 | 2-Methylphenol | 360 | |
| 108-60-1 | 2,2'-oxybis(1-Chloropropane) | | 1 |
| 106-44-5 | 4-Methylphenol_ | 360 | |
| 621-64-7 | N-Nitroso-di-n-propylamine | 360 | 1 |
| 67-72-1 | Hexachloroethane | 360 | I I |
| 98-95-3 | Nitrobenzene | 360 | |
| | Isophorone | 360 | 1 1 |
| 88-75-5 | 2-Nitrophenol | 360 | |
| 105-67-9 | 2,4-Dimethylphenol | 360 | |
| 111-91-1 | bis(2-Chloroethoxy)methane_ | 360 | |
| 120-83-2 | 2,4-Dichlorophenol | 360 | |
| 120-82-1 | 1,2,4-Trichlorobenzene | 360 | |
| 91-20-3 | Naphthalene | 360 | |
| | 4-Chloroaniline | 360 | |
| | Hexachlorobutadiene | 360 | |
| | 4-Chloro-3-methylphenol | 360 | |
| | 2-Methylnaphthalene | 360 | |
| | Hexachlorocyclopentadiene | 360 | |
| 88-06-2 | 2,4,6-Trichlorophenol | 360 | |
| 95-95-4 | 2,4,5-Trichlorophenol | 910 | |
| 91-58-7 | 2-Chloronaphthalene | 360 | |
| 88-74-4 | 2-Nitroaniline | 910 | |
| 131-11-3 | Dimethylphthalate | 360 | 1 |
| 208-96-8 | Acenaphthylene | 360 | |
| 606-20-2 | 2,6-Dinitrotoluene | 360 | 1 |
| 99-09-2 | 3-Nitroaniline | 910 | |
| 83-32-9 | Acenaphthene | 360 | |
| -, - | | | |
| | | · ————— | ١١ |

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

JM167

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.:

SDG No.: JM166

Matrix: (soil/water) SOIL

Lab Sample ID: 835266

Sample wt/vol: 30.1 (g/mL) g

Lab File ID: GH035266C64

Level: (low/med) LOW

Date Received: 12/21/96

% Moisture: 9 decanted: (Y/N) N

Date Extracted:12/23/96

Concentrated Extract Volume: 500 (uL)

Date Analyzed: 12/30/96

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.1

Number TICs found: 6

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | 0 |
|------------------------|----------------------------|-----------------|------------|-------|
| C-D NOUDER | CONFOOND NAME | | ESI CONC. | 1 ~ 1 |
| 1. | ALDOL (BC) | 4.50 | | JAB R |
| 2. | UNIGNOWN (BC) | 4:71 | 410 | |
| 3. 822-67-3 | 2-CYCLOHEXEN-1-OL | 5.14 | Į. | NJ |
| 4. 930-68-7 | 2-CYCLOHEXEN-1-ONE | 5.71 | | NJ |
| 5. 822 86 6 | CYCLOHEXANE, 1,2 DICHLORO, | 7.45 | 110- | |
| 6. | UNKNOWN | 17.52 | 140 | JD |
| 7 | | | | " |
| 8. | | | | |
| 19. | | | | |
| 1 10. | | | | |
| 1 1 1 . | | | | |
| 12. | | | | |
| 13. | | | | |
| 14. | | | | |
| (15. | | | | |
| 16. | | | | |
| ± / • | | | | |
| 18. | | | | |
| 19. | | | | |
| 20. | | | | |
| 21. | | ·] | | |
| 23. | | | | |
| 24. | | | | |
| 25. | | | | |
| 26. | | | | |
| 27. | | | | |
| 28. | | | | · |
| 29. | | | | |
| 30. | | | | |
| | | | | |

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

JM167

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

(Y/N) Y pH: 7.1

GPC Cleanup:

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM166

Matrix: (soil/water) SOIL Lab Sample ID: 835266

Sample wt/vol: 30.1 (g/mL) g Lab File ID: GH035266C64

Level: (low/med) LOW Date Received: 12/21/96

% Moisture: 9 decanted: (Y/N) N Date Extracted:12/23/96

Concentrated Extract Volume: 500(uL) Date Analyzed: 12/30/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

injection volume: 2.0 (dd) Dilution ractor. 1.0

CONCENTRATION UNITS:

| CAS NO. | COMPOUND | (ug/L or | ug/Kg) | ug/Kg | Q | |
|----------|------------------------|-----------|-----------------|-------|------|---|
| 51-28-5 | 2,4-Dinitrophenol | | | 910 | נטוי | |
| | 4-Nitrophenol | | ' | 910 | | |
| | Dibenzofuran | | <u> </u> | 360 | | • |
| | 2,4-Dinitrotoluene | <u> </u> | | 360 | | |
| | Diethylphthalate | | - | 360 | 1 | |
| | 4-Chlorophenyl-phe | envlether | | 360 | 1 | |
| | Fluorene | 7 | | 360 | | |
| | 4-Nitroaniline | | | | נטו | |
| | 4,6-Dinitro-2-meth | vlphenol | - | 910 | _ | |
| | N-nitrosodiphenyla | | | 360 | | |
| | 4-Bromophenyl-pher | | | 360 | | |
| | Hexachlorobenzene | | | 360 | 1 | |
| | Pentachlorophenol | | | 910 | | |
| | Phenanthrene | | | 360 | 1 | |
| | Anthracene | | } | 360 | | |
| | Carbazole | | - | 360 | | |
| | Di-n-butylphthalat | .e | - . | 360 | | |
| | Fluoranthene | | | 360 | | |
| 129-00-0 | | | | 360 | | |
| 85-68-7 | Butylbenzylphthala | ite | -1 | 360 | | |
| 91-94-1 | 3,3'-Dichlorobenzi | .dine | - | | ΓŪ | |
| | Benzo(a)anthracene | | - | 360 | | |
| 218-01-9 | | | | 360 | | |
| | bis(2-Ethylhexyl)p | hthalate | - | 360 | | |
| 117-84-0 | Di-n-octylphthalat | :e | | 360 | 4 | |
| 205-99-2 | Benzo(b)fluoranthe | ene | - | 360 | | |
| | Benzo(k)fluoranthe | | | 360 | | |
| | Benzo(a)pyrene | | | 360 | | |
| | Indeno $(1,2,3-cd)$ py | rene | | 360 | | |
| | Dibenzo(a,h)anthra | | | 360 | | |
| | Benzo(g,h,i)peryle | | | 360 | | |
| V 05 | separated from Dipher | | 1 | | .1 | |

(1) - Cannot be separated from Diphenylamine

01M03.0

JM167

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.:

SDG No.: JM166

Matrix: (soil/water) SOIL

Lab Sample ID: 835266

Sample wt/vol: 30.1 (g/mL) g

Lab File ID:

GH035266C64

Level: (low/med) LOW

Date Received: 12/21/96

% Moisture: 9

decanted: (Y/N) N

Date Extracted:12/23/96

Concentrated Extract Volume:

500 (uL)

Date Analyzed: 12/30/96

Injection Volume:

2.0(吐)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.1

CONCENTRATION UNITS:

CAS NO.

COMPOUND

(ug/L or ug/Kg) ug/Kg

| , | | |
|--------------------------------------|-------------|-------------|
| 108-95-2Phenol | 360 | ט |
| 111-44-4bis(2-Chloroethyl)ether | 360 | U |
| 95-57-82-Chlorophenol | 360 | U |
| 541-73-11,3-Dichlorobenzene | 360 | U |
| 106-46-71,4-Dichlorobenzene | 360 | υ |
| 95-50-11,2-Dichlorobenzene | 360 | U |
| 95-48-72-Methylphenol | 360 | บ |
| 108-60-12,2'-oxybis(1-Chloropropane) | 360 | U |
| 106-44-54-Methylphenol | 360 | U |
| 621-64-7N-Nitroso-di-n-propylamine | 360 | U |
| 67-72-1Hexachloroethane | 360 | U |
| 98-95-3Nitrobenzene | 360 | U |
| 78-59-1Isophorone | 360 | U |
| 88-75-52-Nitrophenol | 360 | U |
| 105-67-92,4-Dimethylphenol | 360 | บ |
| 111-91-1bis(2-Chloroethoxy)methane | 360 | บ |
| 120-83-22,4-Dichlorophenol | 360 | U |
| 120-82-11,2,4-Trichlorobenzene | 360 | Ū |
| 91-20-3Naphthalene | 360 | U |
| 106-47-84-Chloroaniline | 360 | U |
| 87-68-3Hexachlorobutadiene | 360 | |
| 59-50-74-Chloro-3-methylphenol | 360 | |
| 91-57-62-Methylnaphthalene | 360 | |
| 77-47-4Hexachlorocyclopentadiene | 360 | |
| 88-06-22,4,6-Trichlorophenol | 360 | U |
| 95-95-42,4,5-Trichlorophenol | 910 | - |
| 91-58-72-Chloronaphthalene | 360 | |
| S8-74-42-Nitroaniline | 910 | |
| 131-11-3Dimethylphthalate | 360 | |
| 208-96-8Acenaphthylene | 360 | |
| 606-20-22,6-Dinitrotoluene | 360 | |
| 99-09-23-Nitroaniline | 910 | |
| 83-32-9Acenaphthene | 360 | U |
| | | |

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EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

JM166

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM166

Matrix: (soil/water) SOIL

Lab Sample ID: 835257

Sample wt/vol: 30.1 (g/mL) g Lab File ID: GH035257A64

Level: (low/med) LOW

Date Received: 12/21/96

% Moisture: 12 decanted: (Y/N) N

Date Extracted:12/23/96

Concentrated Extract Volume: 500 (uL)

Number TICs found: 6

Date Analyzed: 12/30/96

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.7

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

RT CAS NUMBER COMPOUND NAME EST. CONC. _______| PLDOL (DC)-5700 4.64 UNICKOWN (BC) 5.06 2-CYCLOHEXEN-1-OL 3. 822-67-3 79 NJ 4. 930-68-7 82 NJ 2-CYCLOHEXEN-1-ONE 5.63 -7.37 - 88 NJB R 470 JN CYCLOHEXANE, 1,2 DIGILORO , 5. 322-86-6 **UNKNOWN** 17.45 10.____ 11.___ 12. 16. 17. __ 19. 20.___ 21.__ 22. _ 23.____ 25. 30.

OLM03.0

JM166

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM166

Matrix: (soil/water) SOIL

Lab Sample ID: 835257

Sample wt/vol: 30.1 (g/mL) g Lab File ID: GH035257A64

Level: (low/med) LOW

Date Received: 12/21/96

% Moisture: 12 decanted: (Y/N) N

Date Extracted:12/23/96

Concentrated Extract Volume: 500(uL) Date Analyzed: 12/30/96

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

CONCENTRATION UNITS:

GPC Cleanup: (Y/N) Y pH: 6.7

| | CAS NO. | COMPOUND | (ug/L or ug/ | | Q |
|---|----------|---------------------------------|--------------|-------|-------|
| | | -2,4-Dinitrophenol | | 940 | _ |
| Ì | 100-02-7 | | | 940 | |
| | 132-64-9 | | | 370 | , , |
| | | -2,4-Dinitrotoluer | ne | 370 | 1 1 |
| - | | -Diethylphthalate | | 370 | 1 1 |
| | | -4-Chlorophenyl-ph | enylether | 370 | 1 1 |
| | 86-73-7 | | | 370 | I I |
| | | -4-Nitroaniline | | 940 | 1 1 |
| | | -4,6-Dinitro-2-met | | 940 | 1 1 |
| 1 | | -N-nitrosodiphenyl | | . 370 | 1 |
| | | -4-Bromophenyl-phe | | 370 | |
| | | -Hexachlorobenzene | | 370 | U |
| 1 | 87-86-5 | -Pentachlorophenol | | 940 | U |
| | 85-01-8 | -Phenanthrene | | 370 | U |
| ł | 120-12-7 | -Anthracene | | 370 | U |
| | 86-74-8 | -Carbazole | | 370 | ט |
| 1 | 84-74-2 | -Di-n-butylphthala | te | 370 | ן ט |
| 1 | 206-44-0 | -Fluoranthene | | 370 | U |
| | 129-00-0 | -Pyrene - | | 370 | ן ט |
| | | -Butylbenzylphthal | ate | 370 | ן ט |
| | | -3,3 ⁷ -Dichlorobenz | | 370 | עט |
| | | -Benzo (a) anthracen | | 370 | |
| | 218-01-9 | | | 370 | lu / |
| 1 | | -bis(2-Ethylhexyl) | phthalate | 52 | |
| | 117-84-0 | -Di-n-octylphthala | te | 370 | |
| | 205-99-2 | -Benzo(b)fluoranth | ene | 370 | 1 |
| | | -Benzo(k) fluoranth | | 370 | 1 1 |
| | 50-32-8 | | | 370 | 1 - 1 |
| | | -Indeno(1,2,3-cd)p | vrene | 370 | • • |
| | 53-70-3 | -Dibenzo(a,h)anthr | acene | . 370 | 1 1 |
| 1 | | -Benzo(g,h,i)peryl | | 370 | |
| | 272 27 5 | 20.20 (3,,1,201)1 | | 5,0 | |
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(1) - Cannot be separated from Diphenylamine

JM166

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM166

Matrix: (soil/water) SOIL Lab Sample ID: 835257

Sample wt/vol: 30.1 (g/mL) g Lab File ID: GH035257A64

Level: (low/med) LOW Date Received: 12/21/96

% Moisture: 12 decanted: (Y/N) N Date Extracted:12/23/96

Concentrated Extract Volume: 500 (uL) Date Analyzed: 12/30/96

Injection Volume: 2:0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.7

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/Kg Q

| | (13, 1 01 13, | · | |
|----------|------------------------------|-----|-----|
| 108-95-2 | PhenOl | 370 | IJ |
| | bis(2-Chloroethyl)ether | 370 | l . |
| | 2-Chlorophenol | 370 | |
| | 1,3-Dichlorobenzene | 370 | 1 |
| | 1,4-Dichlorobenzene | 370 | |
| | 1,2-Dichlorobenzene | 370 | 1 |
| | 2-Methylphenol | 370 | 1 |
| | 2,2'-oxybis(1-Chloropropane) | 370 | |
| | 4-Methylphenol | 370 | |
| | N-Nitroso-di-n-propylamine | 370 | |
| | Hexachloroethane | 370 | 1 |
| | Nitrobenzene | 370 | 1 |
| | Isophorone | 370 | |
| | 2-Nitrophenol | 370 | |
| | 2,4-Dimethylphenol | 370 | |
| | bis(2-Chloroethoxy)methane | 370 | 1 |
| | 2,4-Dichlorophenol | 370 | |
| | 1,2,4-Trichlorobenzene | 370 | U |
| | Naphthalene | 370 | U |
| | 4-Chloroaniline | 370 | U |
| 87-68-3 | Hexachlorobutadiene | 370 | U |
| 59-50-7 | 4-Chloro-3-methylphenol | 370 | U |
| | 2-Methylnaphthalene | 370 | U |
| | Hexachlorocyclopentadiene | 370 | U |
| 88-06-2 | 2,4,6-Trichlorophenol | 370 | U |
| | 2,4,5-Trichlorophenol | 940 | U |
| | 2-Chloronaphthalene | 370 | U |
| 88-74-4 | 2-Nitroaniline | 940 | U |
| 131-11-3 | Dimethylphthalate | 370 | U |
| 208-96-8 | Acenaphthylene | 370 | U |
| | 2,6-Dinitrotoluene | 370 | U. |
| | 3-Nitroaniline | 940 | U |
| | Acenaphthene | 370 | U |
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1E VOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

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EPA SAMPLE NO.

| Lab | Name: | COMPUCHEM | ENV. | CORP. |
|-----|-------|-----------|------|-------|
|-----|-------|-----------|------|-------|

Contract: 68D50009

| JM. | T 38 | |
|-----|------|--|
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Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM166

Matrix: (soil/water) SOIL

Lab Sample ID: 835284

Sample wt/vol: 5.0 (g/mL) g

Lab File ID: GH035284C51

Level: (low/med) LOW

Date Received: 12/21/96

% Moisture: not dec. 9

Date Analyzed: 12/24/96

GC Column:DB624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: ____(uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

Number TICs found: 3

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|------------|-----------------------------------|--------------------|----------------------------------------|-------------------|
| 1. | CO2 (NOT IN TIC TOTAL) | 0.84 | ====================================== | ===== ਹੱਤੇ |
| 2. | LABORATORY ARTIFACT | 16.54 | 47 | J / |
| 3. | LABORATORY ARTIFACT | 19-21 | 18 | 5 √/ |
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EPA SAMPLE NO.

JM198

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

SDG No.: JM166

Lab Code: COMPU Case No.: 25253 SAS No.:

Lab Sample ID: 835284

Matrix: (soil/water) SOIL

Sample wt/vol: 5.0 (g/mL) g

Lab File ID: GH035284C51

Date Received: 12/21/96

Level: (low/med) LOW

% Moisture: not dec. 9.

Date Analyzed: 12/24/96

GC Column:DB624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: ____(uL)

Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO. COMPOUND

(ug/L or ug/Kg) ug/Kg

| 74-87-3 | Chloromethane | 11 U |
|------------|----------------------------|----------|
| | Bromomethane | 11 0 |
| | Vinyl Chloride | 11 0 |
| | Chloroethane | 11 0 |
| | Methylene Chloride | 11874 |
| 67-64-1 | | 11884 |
| | Carbon Disulfide | 1 11 0 1 |
| | 1;1-Dichloroethene | 11 0 |
| | 1,1-Dichloroethane | 11 0 |
| | 1,2-Dichloroethene (total) | 11 0 |
| | Chloroform | 11 0 |
| | 1,2-Dichloroethane | 11 0 |
| | 2-Butanone | ווע |
| | l,l,l-Trichloroethane | 11 0 |
| -56-23-5 | Carbon Tetrachloride | 11 0 |
| 75-27-4 | Bromodichloromethane | ווע ו |
| | 1,2-Dichloropropane | ווע ו |
| | cis-1,3-Dichloropropene | 11 0 |
| 79-01-6 | Trichloroethene | 11 0 |
| 124-48-1 | Dibromochloromethane | 11 0 |
| 79-00-5 | 1,1,2-Trichloroethane | ווע |
| 71-43-2 | | וו ווע |
| 10061-02-6 | trans-1,3-Dichloropropene | 11 U |
| 75-25-2 | Bromoform | ווע |
| 108-10-1 | 4-Methyl-2-Pentanone | וווע |
| | 2-Hexanone | ווע |
| 127-18-4 | Tetrachloroethene | 11 U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 11 0 |
| 108-88-3 | | ו ווע ו |
| 108-90-7 | Chlorobenzene | 11 0 |
| | Ethylbenzene | ווען |
| 100-42-5 | | י בו ע |
| | Xylene (Total) | 11 0 |
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1E VOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

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Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.:

SDG No.: JM166

Matrix: (soil/water) SOIL

Lab Sample ID: 835283

Sample wt/vol: 5.0 (g/mL) g

Lab File ID: GH035283C51

Level: (low/med) LOW

Date Received: 12/21/96

% Moisture: not dec. 16

Date Analyzed: 12/24/96

GC Column: DB624 ID: 0.53 (mm)

Dilution Factor: 1.0 .

Soil Aliquot Volume: ____(uL)

Soil Extract Volume: (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) ug/Kg

| Number ' | TICs | found: | 1 |
|----------|------|--------|---|
|----------|------|--------|---|

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|------------|-------------------------|---------------|---------------------------------------|----|
| 1. | CO2 (NOT IN TIC TOTAL) | 0.87 | 18 | |
| 2. | CO2 (NOT 111 TIC TOTIE) | 0.07 | | |
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FORM I VOA-TIC

EPA SAMPLE NO.

JM197

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM166

Matrix: (soil/water) SOIL

Lab Sample ID: 835283

Sample wt/vol: 5.0 (g/mL) g

Lab File ID: GH035283C51

Level: (low/med) LOW

Date Received: 12/21/96

% Moisture: not dec. 16

Date Analyzed: 12/24/96

GC Column:DB624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: ___(uL)

Soil Aliquot Volume: (uL)

CONCENTRATION UNITS.

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|---------|-------------------|-----------------------|---|--|--|
| CAS NO. | COMPOUND | (ug/L or ug/Kg) ug/Kg | Q | | |

| 74-87-3Chloromethane | 12 U |
|-------------------------------------|----------------|
| 74-83-9Bromomethane | 12 U |
| 75-01-4Vinyl Chloride | 12 U |
| 75-00-3Chloroethane | 12 0 |
| 75-09-2Methylene Chloride | 12 # \$ 4 |
| 67-64-1Acetone | 1 7 7 12 |
| 75-15-0Carbon Disulfide | 12 U 12 U |
| 75-35-41,1-Dichloroethene | 12 U |
| 75-34-31,1-Dichloroethane | 12 U |
| 540-59-01, 1-Dichloroethene (total) | |
| | 12 U |
| 67-66-3Chloroform | 12 U |
| 107-06-21,2-Dichloroethane | 12 U |
| 78-93-32-Butanone | 12 U |
| 71-55-61,1,1-Trichloroethane | 12 U |
| 56-23-5Carbon Tetrachloride | 12 U |
| 75-27-4Bromodichloromethane | 12 U |
| 78-87-51,2-Dichloropropane | 12 U |
| 10061-01-5cis-1,3-Dichloropropene | 12 U |
| 79-01-6Trichloroethene | 12 U |
| 124-48-1Dibromochloromethane | 12 U |
| 79-00-51,1,2-Trichloroethane | 12 [U] |
| 71-43-2Benzene | 12 U |
| 10061-02-6trans-1,3-Dichloropropene | 12 U |
| 75-25-2Bromoform | 12 U |
| 108-10-14-Methyl-2-Pentanone | 12 0 |
| 591-78-62-Hexanone | 12 U |
| 127-18-4Tetrachloroethene | 12 U |
| 79-34-51,1,2,2-Tetrachloroethane | 12 0 |
| 108-88-3Toluene | 12 U |
| 108-90-7Chlorobenzene | 12 U |
| 100-41-4Ethylbenzene | 12 U |
| 100-42-5Styrene | 12 U |
| 1330-20-7Xylene (Total) | 12 U |
| 1,1000 (1,000.1) | |
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FORM I VOA

VOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

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| JM196 |

EPA SAMPLE NO.

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.:

SDG No.: JM166

Matrix: (soil/water) SOIL

Lab Sample ID: 835282

Sample wt/vol: 5.0 (g/mL) g

Lab File ID: GH035282C51

Level: (low/med) LOW

Date Received: 12/21/96

% Moisture: not dec. 11

Date Analyzed: 12/24/96

GC Column: DB624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

Number TICs found: 2

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|------------|------------------------|-------|--------------|---------------|
| | | | | ==== |
| 1. | CO2 (NOT IN TIC TOTAL) | 0.88 | 16 | 1033 J |
| 2. | LABORATORY ARTIFACT | 16.55 | | JR |
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FORM I VOA-TIC

and environment OLM03.0 ecology and environment

EPA SAMPLE NO.

JM196

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM166

Matrix: (soil/water) SOIL Lab Sample ID: 835282

Sample wt/vol: 5.0 (g/mL) g Lab File ID: GH035282C51

Level: (low/med) LOW Date Received: 12/21/96

% Moisture: not dec. 11 Date Analyzed: 12/24/96

GC Column: DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/Kg Q

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|-------------------------------------|--------|-------|
| 74-87-3Chloromethane | _ 11 | ט |
| 74-83-9Bromomethane | _ 11 | U |
| 75-01-4Vinyl Chloride | _ 11 | U |
| 75-00-3Chloroethane | _ 11 | ן ו |
| 75-09-2Methylene Chloride | - 11 Z | J 4 |
| 67-64-1Acetone | 12 | |
| 75-15-0Carbon Disulfide | _ | Ū |
| 75-35-41,1-Dichloroethene | _ 11 | ן טן |
| 75-34-31,1-Dichloroethane | _ 11 | ן ט |
| 540-59-01, 2-Dichloroethene (total) | 11 | 1 1 |
| 67-66-3Chloroform | | |
| 107-06-21, 2-Dichloroethane | -\ ii | i 1 |
| 78-93-32-Butanone | - 11 | |
| 71-55-61,1,1-Trichloroethane | - 11 | 1 1 |
| 56-23-5Carbon Tetrachloride | 11 | 1 - |
| 75-27-4Bromodichloromethane | - 11 | 1 [|
| 78-87-51,2-Dichloropropane | - 11 | 1 . |
| 10061-01-5cis-1,3-Dichloropropene | - 11 | i i |
| 79-01-6Trichloroethene | - 11 | |
| 124-48-1Dibromochloromethane | - 11 | 1 |
| 79-00-51,1,2-Trichloroethane | | i I |
| 71-43-2Benzene | 11 | 1 1 |
| 10061-02-6trans-1,3-Dichloropropene | - 11 | |
| 75-25-2Bromoform | - 11 | |
| 108-10-14-Methyl-2-Pentanone | - 11 | , , |
| 591-78-62-Hexanone | - 11 | 1 1 |
| 127-18-4Tetrachloroethene | - 1 | |
| 79-34-51,1,2,2-Tetrachloroethane | - 11 | |
| 108-68-3Toluene | - 11 | (|
| 108-90-7Chlorobenzene | - 11 | l - l |
| 100-41-4Ethylbenzene | - 11 | 1 1 |
| 100-42-5Styrene | - 11 | 1 - 1 |
| 1330-20-7Xylene (Total) | - 11 | , · |
| 1930-50-1 | - | |
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FORM I VOA

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lE . VOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

| Lab Name: COMPUCHEM | ENV. CORP. | Contract: 68D50009 | JM195 |
|----------------------|-----------------|--------------------|-------------|
| Lab Code: COMPU | Case No.: 25253 | SAS No.: SDG | No.: JM166 |
| Matrix: (soil/water) | SOIL | Lab Sample ID: | 835281 |
| Sample wt/vol: | 5.0 (g/mL) g | Lab File ID: | GH035281C51 |
| Level: (low/med) | LOW | Date Received: | 12/21/96 |
| % Moisture: not dec. | 11 . | Date Analyzed: | 12/24/96 |
| GC Column:DB624 | ID: 0.53 (mm) | Dilution Facto | r: 1.0 |

CONCENTRATION UNITS:

Number TICs found: 3

Soil Extract Volume: (uL)

(ug/L or ug/Kg) ug/Kg

Soil Aliquot Volume: ____ (uL)

| | | | | <u> </u> |
|----------------------------------------|----------------------------|-------|---------------------------------------|-------------|
| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
| ====================================== | CO2_/NOT_IN_TIC_TOTALL | 0.83 | 10 | 1 0 |
| 1. | CCS (1101-111-110-101-110) | | 1 | 西人 |
| 2. | LABORATORY ARTIFACT | 16.52 | 13 | <u> </u> |
| 3. | 4_ABORATORY ARTIFACT | 19.20 | 9 | T V |
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ecology and environment OLM03.0 ecology and environment

EPA SAMPLE NO.

JM195

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

COMPOUND

CAS NO.

100-42-5----Styrene

1330-20-7-----Xylene (Total)

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM166

Lab Sample ID: 835281 Matrix: (soil/water) SOIL

Sample wt/vol: 5.0 (g/mL) g Lab File ID: GH035281C51

Level: (low/med) LOW Date Received: 12/21/96

Date Analyzed: 12/24/96 % Moisture: not dec. 11

GC Column: DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

> CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

74-87-3-----Chloromethane 11 U 74-83-9-----Bromomethane 11 U 75-01-4-----Vinyl Chloride 11 | U 75-00-3-----Chloroethane 11 U 75-09-2-----Methylene Chloride 11 4 8 4 11 8 2 43 67-64-1-----Acetone 75-15-0-----Carbon Disulfide 11 U 75-35-4----1,1-Dichloroethene 11 U 75-34-3-----1,1-Dichloroethane_ 11 U 11 | U 540-59-0----1, 2-Dichloroethene (total) 11 U 67-66-3-----Chloroform 107-06-2----1, 2-Dichloroethane 11 U 78-93-3-----2-Butanone 11 U 71-55-6-----1,1,1-Trichloroethane 11 U 56-23-5-----Carbon Tetrachloride ט|וו 11 U 75-27-4-----Bromodichloromethane 78-87-5----1,2-Dichloropropane 11 U 10061-01-5----cis-1,3-Dichloropropene 11 U. 79-01-6-----Trichloroethene 11 U 124-48-1-----Dibromochloromethane 11 U 11 10 79-00-5-----1,1,2-Trichloroethane 71-43-2----Benzene 11 U 10061-02-6----trans-1,3-Dichloropropene 11 U 75-25-2-----Bromoform 11 U 108-10-1----4-Methyl-2-Pentanone 11 U. 591-78-6----2-Hexanone 11 U 127-18-4----Tetrachloroethene 11 U 11 U 79-34-5----1,1,2,2-Tetrachloroethane 108-88-3-----Toluene 11 U 108-90-7-----Chlorobenzene 11 U 100-41-4-----Ethylbenzene 11 U

11 U

11 U

VOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

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| JN1194 | |
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EPA SAMPLE NO.

| Lap | Name: | COMPO | ENV. | CORP | • |
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| | | | | | |

Contract: 68D50009

| JN1194 | |
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Lab Code: COMPU

Case No.: 25253 SAS No.:

SDG No.: JM166

Matrix: (soil/water) SOIL

Lab Sample ID: 835280

Sample wt/vol: \cdot 5.0 (g/mL) g

Lab File ID: GH035280C51

Level:

(low/med) LOW

Date Received: 12/21/96

% Moisture: not dec. 21

Date Analyzed: 12/24/96

GC Column: DB624

ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

Number TICs found: 3

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|------------|------------------------|-------------------|----------------|-------------|
| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | |
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| 1. | CO2 (NOT IN TIC TOTAL) | -0.8 7 | -37 | おかみ |
| 2. | LABORATORY ARTIFACT | _16_56 | -12 | ₩ ./ ./ |
| 3. | LABORATORY ARTIFACT | -19.24 | _ 3 | 13 V |
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FORM I VOA-TIC

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recycled paper

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EPA SAMPLE NO.

JM194

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

COMPOUND

CAS NO.

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM166

Matrix: (soil/water) SOIL Lab Sample ID: 835280

Sample wt/vol: 5.0 (g/mL) g Lab File ID: GH035280C51

Level: (low/med) LOW Date Received: 12/21/96

% Moisture: not dec. 21
Date Analyzed: 12/24/96

GC Column:DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) ug/Kg

74-87-3-----Chloromethane 13 U 74-83-9-----Bromomethane 13 U 75-01-4-----Vinyl Chloride 13 U 75-00-3-----Chloroethane 13 U 13 2 8 4 75-09-2-----Methylene Chloride 13 U 4J 67-64-1-----Acetone 75-15-0-----Carbon Disulfide 75-35-4-----1,1-Dichloroethene 13 U 75-34-3-----1,1-Dichloroethane 13 U 540-59-0-----1, 2-Dichloroethene (total) 13 U 67-66-3------Chloroform 13 U 107-06-2-----1, 2-Dichloroethane 13 U 78-93-3-----2-Butanone 13 U 71-55-6-----1,1,1-Trichloroethane 13 U 56-23-5-----Carbon Tetrachloride 13 U 75-27-4-----Bromodichloromethane 13 U 78-87-5-----1,2-Dichloropropane 13 U 10061-01-5----cis-1,3-Dichloropropene 13 U 79-01-6-----Trichloroethene 13 U 124-48-1-----Dibromochloromethane 13 U 79-00-5-----1,1,2-Trichloroethane 13 U 71-43-2----Benzene 13 U 10061-02-6----trans-1,3-Dichloropropene 13 U 75-25-2-----Bromoform 13 U 108-10-1-----4-Methyl-2-Pentanone 13 U 591-78-6----2-Hexanone 13 LU 127-18-4-----Tetrachloroethene 13 U 79-34-5----1,1,2,2-Tetrachloroethane 13 U 108-88-3-----Toluene 13 U 108-90-7-----Chlorobenzene 13 U 100-41-4-----Ethylbenzene 13 JU 100-42-5-----Styrene 13 U 1330-20-7-----Xylene (Total) 13 U

FORM I VOA

OLM03.0

1E VOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

| | JM178 . | |
|---------|---------|--|
| 3D50009 | | |
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Lab Name: COMPUCHEM ENV. CORP. Contract: 683

Lab Code: COMPU Case No.: 25253 SAS No.:

SDG No.: JM166

Matrix: (soil/water) SOIL

Lab Sample ID: 835276

Sample wt/vol: 5.0 (g/mL) g

Lab File ID: GH035276C51

Level: (low/med) LOW

Date Received: 12/21/96

% Moisture: not dec. 12

Date Analyzed: 12/24/96

GC Column: DB624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

| | | CONCENTRATION UNITS: |
|--------------------|-----|-----------------------|
| Number TICs found: | 1 . | (ug/L or ug/Kg) ug/Kg |

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|------------|-----------------------|---------------|-------------|-------------|
| ··· | OS (NOT IN TIC TOTAL) | -0.8¢ | 1- | JB R |
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FORM I VOA-TIC

and environment OLM03.0 ecology and environment

EPA SAMPLE NO.

JM178

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

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Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM166

Matrix: (soil/water) SOIL Lab Sample ID: 835276

Sample wt/vol: 5.0 (g/mL) g Lab File ID: GH035276C51

Level: (low/med) LOW Date Received: 12/21/96

% Moisture: not dec. 12 Date Analyzed: 12/24/96

GC Column:DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/Kg Q

| | | | , |
|-----------|----------------------------|-------------|-----|
| 74-87-3 | Chloromethane | . 11 | U |
| 74-83-9 | Bromomethane | 11 | Ū |
| 75-01-4 | Vinvl Chloride | 11 | |
| | Chloroethane | 11 | |
| | Methylene Chloride | | 24 |
| 67-64-1 | | | บง |
| | Carbon Disulfide | 11 | ſ |
| | 1,1-Dichloroethene | 11 | |
| | 1,1-Dichloroethane | 11 | ŀ |
| | 1,2-Dichloroethene (total) | 11 | |
| 67-66-3 | | 11 | 1 |
| | 1,2-Dichloroethane | 11 | |
| 78-93-3 | | 11 | |
| | 1,1,1-Trichloroethane | 11 | |
| | Carbon Tetrachloride | 11 | |
| | Bromodichloromethane | 11 | |
| | 1,2-Dichloropropane | 11 | |
| | cis-1,3-Dichloropropene | . 11 | |
| | Trichloroethene | 11 | |
| | Dibromochloromethane | 11 | |
| | 1,1,2-Trichloroethane | 11 | |
| 71-43-2 | | 11 | |
| | trans-1,3-Dichloropropene | 11 | |
| 75-25-2 | | 11 | |
| | 4-Methyl-2-Pentanone | 11 | |
| 591-78-6 | | 11 | |
| | Tetrachloroethene | 11 | |
| | 1,1,2,2-Tetrachloroethane | 11 | |
| 108-88-3 | | 11 | i e |
| | | | 1 |
| | Chlorobenzene | 11 | l |
| | Ethylbenzene | 11 | 1 |
| 100-42-5 | | 11 | 1 |
| 1330-20-7 | Xylene (Total) | 11 | U |
| | | 10 | l |

VOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

| JM177 | | |
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Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.:

SDG No.: JM166

Matrix: (soil/water) SOIL

% Moisture: not dec. 9

Lab Sample ID: 835275

Sample wt/vol: 5.0 (g/mL) g

Lab File ID: GH035275C51

Level: (low/med) LOW

Date Received: 12/21/96

Date Analyzed: 12/24/96

GC Column: DB624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: ____(uL)

CONCENTRATION UNITS:

Number TICs found: 1

(ug/L or ug/Kg) ug/Kg

| } | 1 | Γ | | |
|-----------------------------------------|------------------------|-------------|-------------|--------------|
| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
| ======================================= | 1 | ====== | ========== | ===== |
| 1. | CO2 (NOT IN TIC TOTAL) | 0.88 | -41 | 100 K |
| 2. | | | , | ' |
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EPA SAMPLE NO.

JM177

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM166

Matrix: (soil/water) SOIL Lab Sample ID: 835275

Sample wt/vol: 5.0 (g/mL) g Lab File ID: GH035275C51

Level: (low/med) LOW Date Received: 12/21/96

% Moisture: not dec. 9 Date Analyzed: 12/24/96

GC Column:DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: ____(uL) Soil Aliquot Volume: ____(uL)

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/Kg Q

| 74-87-3Chloromethane | 11 U | 1 |
|-----------------------------------------------------------------|--------------------|-----|
| 74-83-9 | 11 0 | 1 |
| .75-00-3Chloroethane | 11 0 | I I |
| | | |
| 75-09-2Methylene Chloride 67-64-1Acetone | 11 2 3 | |
| 75-15-0Carbon Disulfide | 11 U 11 U | , |
| 75-35-41,1-Dichloroethene | 11 0 | 1 |
| | 1 | |
| 75-34-31,1-Dichloroethane 540-59-01,2-Dichloroethene (total) | ן 11 ט 11 ט | |
| 67-66-3Chloroform | | I . |
| | 11 U | |
| 107-06-21,2-Dichloroethane | 11 0 | |
| 78-93-32-Butanone | 11 U | |
| 71-55-61,1,1-Trichloroethane | 11 U | |
| 56-23-5Carbon Tetrachloride | 11 U | |
| 75-27-4Bromodichloromethane | 11 U | |
| 78-87-51,2-Dichloropropane | 11 0 | |
| 10061-01-5cis-1,3-Dichloropropene | 11 U | |
| 79-01-6Trichloroethene | 11 0 | - 1 |
| 124-48-1Dibromochloromethane | 11 U | , |
| 79-00-51,1,2-Trichloroethane | 11 U | |
| 71-43-2Benzene | 11 U | 1 |
| 10061-02-6trans-1,3-Dichloropropene | 11 U | 1 |
| 75-25-2Bromoform | 11 U | |
| 108-10-14-Methyl-2-Pentanone | 11 U | - 1 |
| 591-78-62-Hexanone | 11 U | |
| 127-18-4Tetrachloroethene | 11 0 | |
| 79-34-51,1,2,2-Tetrachloroethane | ן 11 ט | 1 |
| 108-88-3Toluene | 11 U | ī [|
| 108-90-7Chlorobenzene | 11 ע | T \ |
| 100-41-4Ethylbenzene | 11 U | ı |
| 100-42-5Styrene | 11 U | ; |
| 1330-20-7Xylene (Total) | 11 0 | , |
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VOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED

EPA SAMPLE NO.

| COMPOUNDS | } |
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| • | JM176 |
| ntract: 68D50009 | |

Lab Name: COMPUCHEM ENV. CORP.

Lab Code: COMPU Case No.: 25253 SAS No.:

SDG No.: JM166

Matrix: (soil/water) SOIL

Lab Sample ID: 835274

Sample wt/vol: 5.0 (g/mL) g

Lab File ID: GH035274C51

Level: (low/med) LOW

Date Received: 12/21/96

% Moisture: not dec. 15

Date Analyzed: 12/24/96

GC Column: DB624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Aliquot Volume: ____(uL)

Soil Extract Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

Number TICs found: 1

| | | T | T | T |
|------------|----------------------------------------|-------------|---------------|-------------|
| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
| | ====================================== | | 1 | _ |
| 1. | CO2 (NOT IN TIC TOTAL) | 0.87 | 38 | DB K |
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FORM I VOA-TIC

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EPA SAMPLE NO.

JM176

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

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Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM166

Matrix: (soil/water) SOIL Lab Sample ID: 835274

Sample wt/vol: 5.0 (g/mL) g Lab File ID: GH035274C51

Level: (low/med) LOW Date Received: 12/21/96

% Moisture: not dec. 15 Date Analyzed: 12/24/96

GC Column:DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: ____(uL) Soil Aliquot Volume: ____(uL)

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/Kg Q

| 74-87-3 | | · | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|------|-----|
| 74-83-9 | 74 07 2 Chloromothano | . 12 | 7.7 |
| 75-01-4 | | | |
| 75-00-3 | | | |
| 75-09-2 | | 1 | 1 1 |
| 67-64-1 | | | |
| 75-15-0 | 4 | | |
| 75-35-4 | | | |
| 75-34-3 | | | |
| 540-59-01, 2-Dichloroethene (total) 12 U 67-66-3Chloroform 12 U 107-06-21, 2-Dichloroethane 12 U 78-93-32-Butanone 12 U 71-55-61, 1, 1-Trichloroethane 12 U 56-23-5Carbon Tetrachloride 12 U 75-27-4Bromodichloromethane 12 U 78-87-51, 2-Dichloropropane 12 U 10061-01-5cis-1, 3-Dichloropropene 12 U 79-01-6Trichloroethane 12 U 79-00-51, 1, 2-Trichloroethane 12 U 79-00-51, 1, 2-Trichloroethane 12 U 7061-02-6trans-1, 3-Dichloropropene 12 U 75-25-2Bromoform 12 U 108-10-14-Methyl-2-Pentanone 12 U 591-78-62-Hexanone 12 U 127-18-4Tetrachloroethene 12 U 108-88-3Toluene 12 U 108-88-3Toluene 12 U 100-41-4Ethylbenzene 12 U 100-42-5 | | · | · I |
| 67-66-3Chloroform 12 U 107-06-21,2-Dichloroethane 12 U 78-93-32-Butanone 12 U 71-55-61,1,1-Trichloroethane 12 U 56-23-5Carbon Tetrachloride 12 U 75-27-4Bromodichloromethane 12 U 78-87-51,2-Dichloropropane 12 U 10061-01-5cis-1,3-Dichloropropene 12 U 79-01-6Trichloroethene 12 U 124-48-1Dibromochloromethane 12 U 79-00-51,1,2-Trichloroethane 12 U 71-43-2Benzene 12 U 10061-02-6trans-1,3-Dichloropropene 12 U 75-25-2Bromoform 12 U 108-10-14-Methyl-2-Pentanone 12 U 127-18-4Tetrachloroethene 12 U 108-88-3 | | 12 | Ū |
| 107-06-21, 2-Dichloroethane 12 U 78-93-32-Butanone 12 U 71-55-61, 1, 1-Trichloroethane 12 U 56-23-5Carbon Tetrachloride 12 U 75-27-4Bromodichloromethane 12 U 78-87-51, 2-Dichloropropane 12 U 10061-01-5cis-1, 3-Dichloropropene 12 U 79-01-6Trichloroethane 12 U 79-01-6Trichloroethane 12 U 79-01-6Trichloroethane 12 U 79-01-6Trichloroethane 12 U 79-01-6 | | 12 | U |
| 78-93-32-Butanone 12 U 71-55-61,1,1-Trichloroethane 12 U 56-23-5Carbon Tetrachloride 12 U 75-27-4Bromodichloromethane 12 U 78-87-51,2-Dichloropropane 12 U 10061-01-5cis-1,3-Dichloropropene 12 U 79-01-6Trichloroethene 12 U 124-48-1Dibromochloromethane 12 U 79-00-51,1,2-Trichloroethane 12 U 71-43-2Benzene 12 U 10061-02-6trans-1,3-Dichloropropene 12 U 75-25-2Bromoform 12 U 108-10-14-Methyl-2-Pentanone 12 U 591-78-62-Hexanone 12 U 127-18-4Tetrachloroethene 12 U 79-34-5Toluene 12 U 108-88-3Toluene 12 U 108-90-7Chlorobenzene 12 U 100-41-4Ethylbenzene 12 U 100-42-5Styrene 12 U | 67-66-3Chloroform | 12 | U |
| 71-55-61,1,1-Trichloroethane 12 U 56-23-5Carbon Tetrachloride 12 U 75-27-4Bromodichloromethane 12 U 78-87-51,2-Dichloropropane 12 U 10061-01-5cis-1,3-Dichloropropene 12 U 79-01-6Trichloroethene 12 U 124-48-1Dibromochloromethane 12 U 79-00-51,1,2-Trichloroethane 12 U 71-43-2Benzene 12 U 10061-02-6trans-1,3-Dichloropropene 12 U 75-25-2Bromoform 12 U 108-10-14-Methyl-2-Pentanone 12 U 591-78-62-Hexanone 12 U 127-18-4Tetrachloroethene 12 U 79-34-5Toluene 12 U 108-88-3Toluene 12 U 108-90-7Chlorobenzene 12 U 100-41-4Ethylbenzene 12 U 100-42-5Styrene 12 U | 107-06-21, 2-Dichloroethane | 12 | U |
| 56-23-5 | 78-93-32-Butanone | 12 | U |
| 56-23-5 | 71-55-61,1,1-Trichloroethane | 12 | U |
| 75-27-4 | | 12 | U |
| 78-87-51, 2-Dichloropropane 12 U 10061-01-5cis-1, 3-Dichloropropene 12 U 79-01-6Trichloroethene 12 U 124-48-1Dibromochloromethane 12 U 79-00-51, 1, 2-Trichloroethane 12 U 71-43-2Benzene 12 U 10061-02-6trans-1, 3-Dichloropropene 12 U 75-25-2Bromoform 12 U 108-10-14-Methyl-2-Pentanone 12 U 591-78-62-Hexanone 12 U 127-18-4Tetrachloroethene 12 U 79-34-5Toluene 12 U 108-88-3Toluene 12 U 108-90-7Chlorobenzene 12 U 100-41-4Ethylbenzene 12 U 100-42-5Styrene 12 U | | 12 | υ |
| 10061-01-5cis-1,3-Dichloropropene 12 U 79-01-6Trichloroethene 12 U 124-48-1Dibromochloromethane 12 U 79-00-51,1,2-Trichloroethane 12 U 71-43-2Benzene 12 U 10061-02-6trans-1,3-Dichloropropene 12 U 75-25-2Bromoform 12 U 108-10-14-Methyl-2-Pentanone 12 U 591-78-62-Hexanone 12 U 127-18-4Tetrachloroethene 12 U 79-34-51,1,2,2-Tetrachloroethane 12 U 108-88-3Toluene 12 U 108-90-7Chlorobenzene 12 U 100-41-4Ethylbenzene 12 U 100-42-5Styrene 12 U | | | l I |
| 79-01-6Trichloroethene 12 U 124-48-1Dibromochloromethane 12 U 79-00-51,1,2-Trichloroethane 12 U 71-43-2Benzene 12 U 10061-02-6trans-1,3-Dichloropropene 12 U 75-25-2Bromoform 12 U 108-10-14-Methyl-2-Pentanone 12 U 591-78-62-Hexanone 12 U 127-18-4Tetrachloroethene 12 U 79-34-51,1,2,2-Tetrachloroethane 12 U 108-88-3Toluene 12 U 108-90-7Chlorobenzene 12 U 100-41-4Ethylbenzene 12 U 100-42-5Styrene 12 U | | | |
| 124-48-1 | | | |
| 79-00-51,1,2-Trichloroethane 12 U 71-43-2Benzene 12 U 10061-02-6trans-1,3-Dichloropropene 12 U 75-25-2Bromoform 12 U 108-10-14-Methyl-2-Pentanone 12 U 591-78-62-Hexanone 12 U 127-18-4Tetrachloroethene 12 U 79-34-51,1,2,2-Tetrachloroethane 12 U 108-88-3Toluene 12 U 108-90-7Chlorobenzene 12 U 100-41-4Ethylbenzene 12 U 100-42-5Styrene 12 U | | | |
| 71-43-2Benzene 12 U 10061-02-6trans-1,3-Dichloropropene 12 U 75-25-2Bromoform 12 U 108-10-14-Methyl-2-Pentanone 12 U 591-78-62-Hexanone 12 U 127-18-4Tetrachloroethene 12 U 79-34-51,1,2,2-Tetrachloroethane 12 U 108-88-3Toluene 12 U 108-90-7Chlorobenzene 12 U 100-41-4Ethylbenzene 12 U 100-42-5Styrene 12 U | | | |
| 10061-02-6trans-1,3-Dichloropropene 12 U 75-25-2Bromoform 12 U 108-10-14-Methyl-2-Pentanone 12 U 591-78-62-Hexanone 12 U 127-18-4Tetrachloroethene 12 U 79-34-51,1,2,2-Tetrachloroethane 12 U 108-88-3Toluene 12 U 108-90-7Chlorobenzene 12 U 100-41-4Ethylbenzene 12 U 100-42-5Styrene 12 U | | | |
| 75-25-2Bromoform 12 U 108-10-14-Methyl-2-Pentanone 12 U 591-78-62-Hexanone 12 U 127-18-4Tetrachloroethene 12 U 79-34-51,1,2,2-Tetrachloroethane 12 U 108-88-3Toluene 12 U 108-90-7Chlorobenzene 12 U 100-41-4Ethylbenzene 12 U 100-42-5Styrene 12 U | | | |
| 108-10-14-Methyl-2-Pentanone 12 U 591-78-62-Hexanone 12 U 127-18-4Tetrachloroethene 12 U 79-34-51,1,2,2-Tetrachloroethane 12 U 108-88-3Toluene 12 U 108-90-7Chlorobenzene 12 U 100-41-4Ethylbenzene 12 U 100-42-5Styrene 12 U | 75-25-2Bromoform | | |
| 591-78-62-Hexanone 12 U 127-18-4Tetrachloroethene 12 U 79-34-51,1,2,2-Tetrachloroethane 12 U 108-88-3Toluene 12 U 108-90-7Chlorobenzene 12 U 100-41-4Ethylbenzene 12 U 100-42-5Styrene 12 U | | | |
| 127-18-4Tetrachloroethene 12 U 79-34-51,1,2,2-Tetrachloroethane 12 U 108-88-3Toluene 12 U 108-90-7Chlorobenzene 12 U 100-41-4Ethylbenzene 12 U 100-42-5Styrene 12 U | | | |
| 79-34-51,1,2,2-Tetrachloroethane 12 U 108-88-3Toluene 12 U 108-90-7Chlorobenzene 12 U 100-41-4Ethylbenzene 12 U 100-42-5Styrene 12 U | | | |
| 108-88-3Toluene 12 U 108-90-7Chlorobenzene 12 U 100-41-4Ethylbenzene 12 U 100-42-5Styrene 12 U | | | |
| 108-90-7Chlorobenzene 12 U 100-41-4Ethylbenzene 12 U 100-42-5Styrene 12 U | | | |
| 100-41-4Ethylbenzene 12 U 100-42-5Styrene 12 U | | | |
| 100-42-5Styrene 12 U | | | 1 |
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| 1330-20-/Xylene (Total) 12 U | | | |
| | 1330-20-/Xytene (Total) | 12 | U |
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1Ξ VOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

- EPA SAMPLE NO.

| JM: | 175 | |
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| | | |

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: CONPU Case No.: 25253 SAS No.:

SDG No.: JM166

Matrix: (soil/water) SOIL

Lab Sample ID: 835273

Sample wt/vol: 5.0 (g/mL) g

Lab File ID: GH035273C51

Lavel: (low/mad) LOW

Date Received: 12/21/96

% Moisture: not dec. 15

Date Analyzed: 12/24/96

GC Column: DB624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Number TICs found: 1

Soil Aliquot Volume: ____(uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

| | |) | | |
|-------------|------------------------|-----------------|-------------|-------------|
| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
| . 1. | CO2 (NOT IN TIC TOTAL) | 0.87 | | JB K |
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FORM I VOA-TIC

EPA SAMPLE NO.

JM175

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM166

Matrix: (soil/water) SOIL

Lab Sample ID: 835273

Sample wt/vol: 5.0 (g/mL) g Lab File ID: GH035273C51

Level: (low/med) LOW

Date Received: 12/21/96

% Moisture: not dec. 15

Date Analyzed: 12/24/96

GC Column: DB624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: ____(uL)

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/Kg Q

| 75-09-2 | | | | , |
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| 75-01-4 | | | 1 | |
| 75-00-3 | | | | 1 |
| 75-09-2 | | | | , |
| 67-64-1 | | | | |
| 75-15-0 | | | 12 | †× // \ |
| 75-35-41,1-Dichloroethane 12 U 75-34-31,2-Dichloroethane 12 U 540-59-01,2-Dichloroethene (total) 12 U 67-66-3Chloroform 12 U 107-05-21,2-Dichloroethane 12 U 78-93-32-Butanone 12 U 71-55-61,1,1-Trichloroethane 12 U 56-23-5Carbon Tetrachloride 12 U 75-27-4Bromodichloromethane 12 U 78-87-51,2-Dichloropropane 12 U 10061-01-5cis-1,3-Dichloropropene 12 U 79-01-6Trichloroethane 12 U 79-00-51,1,2-Trichloroethane 12 U 71-43-2Benzene 12 U 10061-02-6trans-1,3-Dichloropropene 12 U 75-25-2Bromoform 12 U 108-10-14-Methyl-2-Pentanone 12 U 591-78-52-Hexanone 12 U 127-18-4Tetrachloroethene 12 U 79-34-51,1,2,2-Tetrachloroethane 12 U | | | | |
| 75-34-31,1-Dichloroethane 12 U 540-59-01,2-Dichloroethene (total) 12 U 67-66-3Chloroform 12 U 107-06-21,2-Dichloroethane 12 U 78-93-32-Butanone 12 U 71-55-61,1,1-Trichloroethane 12 U 56-23-5Carbon Tetrachloride 12 U 75-27-4Bromodichloromethane 12 U 78-87-51,2-Dichloropropane 12 U 10061-01-5cis-1,3-Dichloropropene 12 U 79-01-6Trichloroethene 12 U 124-48-1Dibromochloromethane 12 U 79-00-51,1,2-Trichloroethane 12 U 71-43-2Benzene 12 U 10061-02-6trans-1,3-Dichloropropene 12 U 75-25-2Bromoform 12 U 108-10-14-Methyl-2-Pentanone 12 U 591-78-62-Hexanone 12 U 127-18-4Tetrachloroethene 12 U 79-34-51,1,2,2-Tetrachloroethane 12 U | | | | |
| 540-59-01,2-Dichloroethene (total) 12 U 67-66-3Chloroform 12 U 107-06-21,2-Dichloroethane 12 U 78-93-32-Butanone 12 U 71-55-61,1,1-Trichloroethane 12 U 56-23-5Carbon Tetrachloride 12 U 75-27-4Bromodichloromethane 12 U 78-87-51,2-Dichloropropane 12 U 10061-01-5tis-1,3-Dichloropropene 12 U 79-01-6Trichloroethane 12 U 79-00-51,1,2-Trichloroethane 12 U 71-43-2Benzene 12 U 10061-02-6trans-1,3-Dichloropropene 12 U 75-25-2Bromoform 12 U 108-10-14-Methyl-2-Pentanone 12 U 591-78-62-Hexanone 12 U 127-18-4Tetrachloroethane 12 U 79-34-51,1,2,2-Tetrachloroethane 12 U | | | | |
| 67-66-3Chloroform 12 U 107-06-21,2-Dichloroethane 12 U 78-93-32-Butanone 12 U 71-55-61,1,1-Trichloroethane 12 U 56-23-5Carbon Tetrachloride 12 U 75-27-4Bromodichloromethane 12 U 78-87-51,2-Dichloropropane 12 U 10061-01-5cis-1,3-Dichloropropene 12 U 79-01-6Trichloroethene 12 U 124-48-1Dibromochloromethane 12 U 79-00-51,1,2-Trichloroethane 12 U 71-43-2Benzene 12 U 1061-02-6trans-1,3-Dichloropropene 12 U 75-25-2Bromoform 12 U 108-10-14-Methyl-2-Pentanone 12 U 591-78-52-Hexanone 12 U 127-18-4Tetrachloroethene 12 U 79-34-51,1,2,2-Tetrachloroethane 12 U | | | | 1 |
| 107-06-21,2-Dichloroethane 12 U 78-93-32-Butanone 12 U 71-55-61,1,1-Trichloroethane 12 U 56-23-5Carbon Tetrachloride 12 U 75-27-4Bromodichloromethane 12 U 78-87-51,2-Dichloropropane 12 U 10061-01-5cis-1,3-Dichloropropene 12 U 79-01-6Trichloroethene 12 U 124-48-1Dibromochloromethane 12 U 79-00-51,1,2-Trichloroethane 12 U 71-43-2Benzene 12 U 1061-02-6trans-1,3-Dichloropropene 12 U 75-25-2Bromoform 12 U 108-10-14-Methyl-2-Pentanone 12 U 591-78-62-Hexanone 12 U 127-18-4Tetrachloroethene 12 U 79-34-51,1,2,2-Tetrachloroethane 12 U | | | i · | |
| 78-93-32-Butanone 12 U 71-55-61,1,1-Trichloroethane 12 U 56-23-5Carbon Tetrachloride 12 U 75-27-4Bromodichloromethane 12 U 78-87-51,2-Dichloropropane 12 U 10061-01-5cis-1,3-Dichloropropene 12 U 79-01-6Trichloroethene 12 U 124-48-1Dibromochloromethane 12 U 79-00-51,1,2-Trichloroethane 12 U 71-43-2Benzene 12 U 1061-02-6trans-1,3-Dichloropropene 12 U 75-25-2Bromoform 12 U 108-10-14-Methyl-2-Pentanone 12 U 591-78-62-Hexanone 12 U 127-18-4Tetrachloroethene 12 U 79-34-51,1,2,2-Tetrachloroethane 12 U | • · · | | | |
| 71-55-6 | — · | | | |
| 56-23-5 | | | | 1 |
| 75-27-4Bromodichloromethane 12 U 78-87-51,2-Dichloropropane 12 U 10061-01-5cis-1,3-Dichloropropene 12 U 79-01-6Trichloroethene 12 U 124-48-1Dibromochloromethane 12 U 79-00-51,1,2-Trichloroethane 12 U 71-43-2Benzene 12 U 10061-02-6trans-1,3-Dichloropropene 12 U 75-25-2Bromoform 12 U 108-10-14-Methyl-2-Pentanone 12 U 591-78-52-Hexanone 12 U 127-18-4Tetrachloroethene 12 U 79-34-51,1,2,2-Tetrachloroethane 12 U | | | 1 | 1 |
| 78-87-51,2-Dichloropropane 12 U 10061-01-5cis-1,3-Dichloropropene 12 U 79-01-6Trichloroethene 12 U 124-48-1Dibromochloromethane 12 U 79-00-51,1,2-Trichloroethane 12 U 71-43-2Benzene 12 U 10061-02-6trans-1,3-Dichloropropene 12 U 75-25-2Bromoform 12 U 108-10-14-Methyl-2-Pentanone 12 U 591-78-62-Hexanone 12 U 127-18-4Tetrachloroethene 12 U 79-34-51,1,2,2-Tetrachloroethane 12 U | | | | 1 |
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| 79-01-6Trichloroethene 12 U 124-48-1Dibromochloromethane 12 U 79-00-51,1,2-Trichloroethane 12 U 71-43-2Benzene 12 U 10061-02-6trans-1,3-Dichloropropene 12 U 75-25-2Bromoform 12 U 108-10-14-Methyl-2-Pentanone 12 U 591-78-62-Hexanone 12 U 127-18-4Tetrachloroethene 12 U 79-34-51,1,2,2-Tetrachloroethane 12 U | | | | 1 |
| 124-48-1Dibromochloromethane 12 U 79-00-51,1,2-Trichloroethane 12 U 71-43-2Benzene 12 U 10061-02-6trans-1,3-Dichloropropene 12 U 75-25-2Bromoform 12 U 108-10-14-Methyl-2-Pentanone 12 U 591-78-52-Hexanone 12 U 127-18-4Tetrachloroethene 12 U 79-34-51,1,2,2-Tetrachloroethane 12 U | | | | |
| 79-00-51,1,2-Trichloroethane 12 U 71-43-2Benzene 12 U 10061-02-6trans-1,3-Dichloropropene 12 U 75-25-2Bromoform 12 U 108-10-14-Methyl-2-Pentanone 12 U 591-78-52-Hexanone 12 U 127-18-4Tetrachloroethene 12 U 79-34-51,1,2,2-Tetrachloroethane 12 U | | | | |
| 71-43-2Benzene 12 U 10061-02-6trans-1,3-Dichloropropene 12 U 75-25-2Bromoform 12 U 108-10-14-Methyl-2-Pentanone 12 U 591-78-62-Hexanone 12 U 127-18-4Tetrachloroethene 12 U 79-34-51,1,2,2-Tetrachloroethane 12 U | | | | 1 |
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| 75-25-2Bromoform 12 U 108-10-14-Methyl-2-Pentanone 12 U 591-78-62-Hexanone 12 U 127-18-4Tetrachloroethene 12 U 79-34-51,1,2,2-Tetrachloroethane 12 U | | | | |
| 108-10-14-Methyl-2-Pentanone 12 U 591-78-62-Hexanone 12 U 127-18-4Tetrachloroethene 12 U 79-34-51,1,2,2-Tetrachloroethane 12 U | | | | • |
| 591-78-62-Hexanone 12 U 127-18-4Tetrachloroethene 12 U 79-34-51,1,2,2-Tetrachloroethane 12 U | | | | 1 |
| 127-18-4Tetrachloroethene 12 U 79-34-51,1,2,2-Tetrachloroethane 12 U | | | l | |
| 79-34-51,1,2,2-Tetrachloroethane 12 U | | | | |
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| 100 00 0 m-1 | | | | |
| 108-88-3Toluene 12 U | | | ! | 1 |
| 108-90-7Chlorobenzene 12 U | | | { | 1 |
| 100-41-4Ethylbenzene 12 U | | · · · · · · · · · · · · · · · · · · · | ĺ | 1 - |
| 100-42-5Styrene 12 U | | * | | (- |
| 1330-20-7Xylene (Total) 12 U | 1330-20-7 | Xylene (Total) | 12 | U |
| | | | | 1 |

1E VOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

| JM174 | |
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| Lab | Name | COMPUCHEM | ENV. | CORP. |
|-----|------|-----------|------|-------|
|-----|------|-----------|------|-------|

Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM166

Matrix: (soil/water) SOIL

Lab Sample ID: 835272

Sample wt/vol: 5.0 (g/mL) g

Lab File ID: GH035272C51

Level: (low/med) LOW

Date Received: 12/21/96

% Moisture: not dec. 15

Date Analyzed: 12/24/96

GC Column:DB624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Aliquot Volume: ____(uL)

Soil Extract Volume: ____(uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

Number TICs found: 2

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|---------------|-----------------------------------------|--------------------|-----------------------------------------|------------------|
| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
| ********* | ======================================= | | ======================================= | i _ |
| 1. | CO2 (NOT IN TIC TOTAL) | 0.85 | 27 | JB -R |
| 2. | LABORATORY ARTIFACT | 19.23 | 16 | T 0 |
| 3. | | | | \ \ |
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and environment OLM03.0

EPA SAMPLE NO.

JM174

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.:

SDG No.: JM166

Matrix: (soil/water) SOIL

Lab Sample ID: 835272

Sample wt/vol: 5.0 (g/mL) g Lab File ID: GH035272C51

Level: (low/med) LOW

Date Received: 12/21/96

% Moisture: not dec. 15

Date Analyzed: 12/24/96

GC Column:DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/Kg Q

| 74-87-3 | , | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|--------|-----|
| 74-83-9 | 74-87-3Chloromethane | 12 0 | |
| 75-01-4 | | | |
| 75-00-3 | | • | |
| 75-09-2 | | 12 0 . | |
| 18 U V V V V V V V V | 75-09-2Methylene Chloride | 1228 | 1 |
| 75-15-0 | | | UJ |
| 75-34-31,1-Dichloroethane 12 U 540-59-01,2-Dichloroethene (total) 12 U 67-66-3Chloroform 12 U 107-06-21,2-Dichloroethane 12 U 78-93-32-Butanone 12 U 71-55-61,1-Trichloroethane 12 U 56-23-5Carbon Tetrachloride 12 U 75-27-4Bromodichloromethane 12 U 78-87-51,2-Dichloropropane 12 U 10061-01-5cis-1,3-Dichloropropene 12 U 79-01-6Trichloroethane 12 U 79-00-51,1,2-Trichloroethane 12 U 71-43-2Benzene 12 U 10061-02-6trans-1,3-Dichloropropene 12 U 75-25-2Bromoform 12 U 108-10-14-Methyl-2-Pentanone 12 U 591-78-62-Hexanone 12 U 127-18-4Tetrachloroethane 12 U 108-88-3Toluene 12 U 108-88-3Toluene 12 U 100-41-4Ethylbenzene 12 U 100-42-5Styrene 12 U | 75-15-0Carbon Disulfide | | |
| 540-59-01, 2-Dichloroethene (total) 12 U 67-66-3Chloroform 12 U 107-06-21, 2-Dichloroethane 12 U 78-93-32-Butanone 12 U 71-55-61, 1, 1-Trichloroethane 12 U 56-23-5Carbon Tetrachloride 12 U 75-27-4Bromodichloromethane 12 U 78-87-51, 2-Dichloropropane 12 U 10061-01-5cis-1, 3-Dichloropropene 12 U 79-01-6Trichloroethene 12 U 124-48-1Dibromochloromethane 12 U 79-00-51, 1, 2-Trichloroethane 12 U 1061-02-6trans-1, 3-Dichloropropene 12 U 75-25-2Bromoform 12 U 108-10-14-Methyl-2-Pentanone 12 U 591-78-62-Hexanone 12 U 127-18-4Tetrachloroethene 12 U 108-88-3Toluene 12 U 108-90-7Chlorobenzene 12 U 100-41-4Ethylbenzene 12 U 100-42-5Styrene 12 U | | 12 U | - 1 |
| 540-59-01, 2-Dichloroethene (total) 12 U 67-66-3Chloroform 12 U 107-06-21, 2-Dichloroethane 12 U 78-93-32-Butanone 12 U 71-55-61, 1, 1-Trichloroethane 12 U 56-23-5Carbon Tetrachloride 12 U 75-27-4Bromodichloromethane 12 U 78-87-51, 2-Dichloropropane 12 U 10061-01-5cis-1, 3-Dichloropropene 12 U 79-01-6Trichloroethene 12 U 124-48-1Dibromochloromethane 12 U 79-00-51, 1, 2-Trichloroethane 12 U 1061-02-6trans-1, 3-Dichloropropene 12 U 75-25-2Bromoform 12 U 108-10-14-Methyl-2-Pentanone 12 U 591-78-62-Hexanone 12 U 127-18-4Tetrachloroethene 12 U 108-88-3Toluene 12 U 108-90-7Chlorobenzene 12 U 100-41-4Ethylbenzene 12 U 100-42-5Styrene 12 U | 75-34-31,1-Dichloroethane | 12 U | |
| 107-06-21,2-Dichloroethane 12 U 78-93-32-Butanone 12 U 71-55-61,1,1-Trichloroethane 12 U 56-23-5Carbon Tetrachloride 12 U 75-27-4Bromodichloromethane 12 U 78-87-51,2-Dichloropropane 12 U 10061-01-5cis-1,3-Dichloropropene 12 U 79-01-6Trichloroethene 12 U 124-48-1Dibromochloromethane 12 U 79-00-51,1,2-Trichloroethane 12 U 71-43-2Benzene 12 U 10061-02-6trans-1,3-Dichloropropene 12 U 75-25-2Bromoform 12 U 108-10-14-Methyl-2-Pentanone 12 U 591-78-62-Hexanone 12 U 127-18-4Tetrachloroethene 12 U 79-34-5Chlorobenzene 12 U 108-88-3Chlorobenzene 12 U 100-41-4Styrene 12 U | | 12 U | ł |
| 78-93-32-Butanone 12 U 71-55-61,1,1-Trichloroethane 12 U 56-23-5Carbon Tetrachloride 12 U 75-27-4Bromodichloromethane 12 U 78-87-51,2-Dichloropropane 12 U 10061-01-5cis-1,3-Dichloropropene 12 U 79-01-6Trichloroethene 12 U 124-48-1Dibromochloromethane 12 U 79-00-51,1,2-Trichloroethane 12 U 71-43-2Benzene 12 U 10061-02-6trans-1,3-Dichloropropene 12 U 75-25-2Bromoform 12 U 108-10-14-Methyl-2-Pentanone 12 U 591-78-62-Hexanone 12 U 127-18-4Tetrachloroethene 12 U 79-34-5Toluene 12 U 108-88-3Toluene 12 U 109-41-4Ethylbenzene 12 U 100-42-5Styrene 12 U | 67-66-3Chloroform | 12 U | - { |
| 71-55-61,1,1-Trichloroethane 12 U 56-23-5Carbon Tetrachloride 12 U 75-27-4Bromodichloromethane 12 U 78-87-51,2-Dichloropropane 12 U 10061-01-5cis-1,3-Dichloropropene 12 U 79-01-6Trichloroethene 12 U 124-48-1Dibromochloromethane 12 U 79-00-51,1,2-Trichloroethane 12 U 71-43-2Benzene 12 U 10061-02-6trans-1,3-Dichloropropene 12 U 75-25-2Bromoform 12 U 108-10-14-Methyl-2-Pentanone 12 U 127-18-4Tetrachloroethene 12 U 79-34-51,1,2,2-Tetrachloroethane 12 U 108-88-3Toluene 12 U 108-90-7Chlorobenzene 12 U 100-41-4Ethylbenzene 12 U 100-42-5Styrene 12 U | 107-06-21,2-Dichloroethane | 12 U | 1 |
| 56-23-5 | 78-93-32-Butanone | 12 U | |
| 75-27-4 | 71-55-61,1,1-Trichloroethane | 12 U |) |
| 78-87-51, 2-Dichloropropane 12 U 10061-01-5cis-1, 3-Dichloropropene 12 U 79-01-6Trichloroethene 12 U 124-48-1Dibromochloromethane 12 U 79-00-51, 1, 2-Trichloroethane 12 U 71-43-2Benzene 12 U 10061-02-6trans-1, 3-Dichloropropene 12 U 75-25-2Bromoform 12 U 108-10-14-Methyl-2-Pentanone 12 U 591-78-62-Hexanone 12 U 127-18-4Tetrachloroethene 12 U 79-34-51, 1, 2, 2-Tetrachloroethane 12 U 108-88-3Toluene 12 U 108-90-7Chlorobenzene 12 U 100-41-4Ethylbenzene 12 U 100-42-5Styrene 12 U | 56-23-5Carbon Tetrachloride | 12 U | 1 |
| 10061-01-5cis-1,3-Dichloropropene 12 U 79-01-6Trichloroethene 12 U 124-48-1Dibromochloromethane 12 U 79-00-51,1,2-Trichloroethane 12 U 71-43-2Benzene 12 U 10061-02-6trans-1,3-Dichloropropene 12 U 75-25-2Bromoform 12 U 108-10-14-Methyl-2-Pentanone 12 U 591-78-62-Hexanone 12 U 127-18-4Tetrachloroethene 12 U 79-34-51,1,2,2-Tetrachloroethane 12 U 108-88-3Toluene 12 U 108-90-7Chlorobenzene 12 U 100-41-4Ethylbenzene 12 U 100-42-5Styrene 12 U | | 12 U | ļ |
| 79-01-6Trichloroethene 12 U 124-48-1Dibromochloromethane 12 U 79-00-51,1,2-Trichloroethane 12 U 71-43-2Benzene 12 U 10061-02-6trans-1,3-Dichloropropene 12 U 75-25-2Bromoform 12 U 108-10-14-Methyl-2-Pentanone 12 U 591-78-62-Hexanone 12 U 127-18-4Tetrachloroethene 12 U 79-34-51,1,2,2-Tetrachloroethane 12 U 108-88-3Toluene 12 U 108-90-7Chlorobenzene 12 U 100-41-4Ethylbenzene 12 U 100-42-5Styrene 12 U | 78-87-51,2-Dichloropropane | 12 U | - 1 |
| 124-48-1Dibromochloromethane 12 U 79-00-51,1,2-Trichloroethane 12 U 71-43-2Benzene 12 U 10061-02-6trans-1,3-Dichloropropene 12 U 75-25-2Bromoform 12 U 108-10-14-Methyl-2-Pentanone 12 U 591-78-62-Hexanone 12 U 127-18-4Tetrachloroethene 12 U 79-34-51,1,2,2-Tetrachloroethane 12 U 108-88-3Toluene 12 U 108-90-7Chlorobenzene 12 U 100-41-4Ethylbenzene 12 U 100-42-5Styrene 12 U | 10061-01-5cis-1,3-Dichloropropene | 12 U | ŀ |
| 79-00-51,1,2-Trichloroethane 12 U 71-43-2Benzene 12 U 10061-02-6trans-1,3-Dichloropropene 12 U 75-25-2Bromoform 12 U 108-10-14-Methyl-2-Pentanone 12 U 591-78-62-Hexanone 12 U 127-18-4Tetrachloroethene 12 U 79-34-51,1,2,2-Tetrachloroethane 12 U 108-88-3Toluene 12 U 108-90-7Chlorobenzene 12 U 100-41-4Ethylbenzene 12 U 100-42-5Styrene 12 U | | 12 U | - { |
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| 127-18-4Tetrachloroethene 12 U 79-34-51,1,2,2-Tetrachloroethane 12 U 108-88-3Toluene 12 U 108-90-7Chlorobenzene 12 U 100-41-4Ethylbenzene 12 U 100-42-5Styrene 12 U | | 12 U | |
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| 1330-20-7Xylene (Total) 12 U | 100-42-5Styrene | 12 U | |
| | 1330-20-7Xylene (Total) | 12 U | |
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VOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

| JM173 | |
|-------|--|
| | |

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.:

SDG No.: JM166

Matrix: (soil/water) SOIL

Lab Sample ID: 835271

Sample wt/vol: 5.0 (g/mL) g

Lab File ID: GH035271C51

Level: (low/med) LOW

Date Received: 12/21/96

% Moisture: not dec. 13

Date Analyzed: 12/24/96

GC Column: DB624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Aliquot Volume: _____(uL)

Soil Extract Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

Number TICs found: 3

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| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
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EPA SAMPLE NO.

JM173

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM166

Matrix: (soil/water) SOIL

Lab Sample ID: 835271

Sample wt/vol: 5.0 (g/mL) g

Lab File ID: GH035271C51

Level: (low/med) LOW

Date Received: 12/21/96

% Moisture: not dec. 13

Date Analyzed: 12/24/96

GC Column:DB624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: ____(uL)

CONCENTRATION UNITS:

CAS NO. COMPOUND

(ug/L or ug/Kg) ug/Kg

| | | | · |
|-----------|----------------------------|----------|-------|
| 74-87-3 | Chloromethane | 11 U | |
| | Bromomethane | | |
| | Vinyl Chloride | 11 U | |
| | Chloroethane | 11 11 0 | |
| | Methylene Chloride | 11 7 8 4 | 1 |
| 67-64-1 | | 1 13 1 | UJ |
| | Carbon Disulfide | . 11 0 | |
| | 1,1-Dichloroethene | 11 0 | • |
| | 1,1-Dichloroethane | 11 0 | |
| | 1,2-Dichloroethene (total) | 11 0 | |
| | Chloroform | 11 0 | |
| | 1,2-Dichloroethane | 11 0 | 1 |
| | 2-Butanone | 11 0 | |
| | 1,1,1-Trichloroethane | 11 0 | , |
| | Carbon Tetrachloride | 11 0 | |
| | Bromodichloromethane | וֹ בוֹע | |
| | 1,2-Dichloropropane | וֹ בוֹע | |
| | cis-1,3-Dichloropropene | 11 0 | |
| | Trichloroethene | 11 0 | |
| | Dibromochloromethane | ווו | |
| | 1,1,2-Trichloroethane | 11 0 | |
| 71-43-2 | | 11 0 | |
| | trans-1,3-Dichloropropene | 11 0 | |
| | Bromoform | 11 U | |
| | 4-Methyl-2-Pentanone | 11 0 | |
| | 2-Hexanone | ווע | |
| | Tetrachloroethene | 11 U | |
| | 1,1,2,2-Tetrachloroethane | 11 U | |
| 108-88-3 | | 11 0 | |
| | Chlorobenzene | 11 0 | |
| | Ethylbenzene | ווו | |
| 100-42-5 | | טווו | |
| | Xylene (Total) | טוו | |
| 1330-20-/ | xylene (local) | 110 | |

VOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

JM172

EPA SAMPLE NO.

| Lab : | Name | : C | OMPU | CHEM | ENV. | . CORP. |
|-------|------|-----|------|------|------|---------|
|-------|------|-----|------|------|------|---------|

Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.:

SDG No.: JM165

Matrix: (soil/water) SOIL

Lab Sample ID: 835270

Sample wt/vol: 5.0 (g/mL) g

Lab File ID: GH035270C51

Level: (low/med) LOW

Date Received: 12/21/96

Date Analyzed: 12/24/96

% Moisture: not dec. 9

Number TICs found: 1

GC Column: DB624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: ____(uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) ug/Kg

| CAS NUMBER | COMPOUND NAME | | EST. CONC. | |
|-----------------------------------------|-----------------------|---------|--------------------|---------------|
| l l | D2 (NOT IN TIC TOTAL) | 0.83 | | |
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EPA SAMPLE NO.

JM172

Lab Name: COMPUCHEM ENV. CORP. Contract: 68D50009

Lab Code: COMPU Case No.: 25253 SAS No.: SDG No.: JM166

Lab Sample ID: 835270 Matrix: (soil/water) SOIL

Sample wt/vol: 5.0 (g/mL) g Lab File ID: GH035270C51

Date Received: 12/21/96 Level: (low/med) LOW

% Moisture: not dec. 9 Date Analyzed: 12/24/96

GC Column:DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: ____(uL)

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) ug/Kg Q

| | | , |
|--------------|----------------------------|--------------|
| 74-87-3 | Chloromethane | 11 U |
| 74-83-9 | Bromomethane | 11 U |
| | Vinyl Chloride | 11 U |
| | Chloroethane | 11 0 |
| | Methylene Chloride | 11 2/8 4 |
| 67-64-1 | <u></u> | 11 7 5 4 |
| | Carbon Disulfide | 11 0 |
| | 1,1-Dichloroethene . | וֹוֹעׁ |
| | 1,1-Dichloroethane | 11 0 |
| | 1,2-Dichloroethene (total) | 11 U |
| | Chloroform | 11 U |
| | 1,2-Dichloroethane | 11 U |
| - | 2-Butanone | 11 U |
| | 1,1,1-Trichloroethane | 11 U |
| | Carbon Tetrachloride | 11 U |
| | Bromodichloromethane | 11 U |
| | 1,2-Dichloropropane | 11 0 |
| | cis-1,3-Dichloropropene | 11 0 |
| | Trichloroethene | 11 U |
| | Dibromochloromethane | 11 U |
| | 1,1,2-Trichloroethane | |
| | | 11 U |
| 71-43-2 | | 11 U |
| | trans-1,3-Dichloropropene | 11 U |
| | Bromoform_ | 11 0 |
| | 4-Methyl-2-Pentanone | 11 U |
| | 2-Hexanone | 11 0 |
| | Tetrachloroethene | 11 U |
| | 1,1,2,2-Tetrachloroethane | 11 U |
| 108-88-3 | | 11 U |
| | Chlorobenzene | 11 U |
| | Ethylbenzene | 11 U |
| 100-42-5 | | 11 U |
| 1330-20-7 | Xylene (Total) | 11 U |
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FORM I VOA

OLM03.0

| United State | es Environmental Protection Agency | Orgar | nic Traffic Rep | ort | SAS No. | Case No. |
|----------------------------------------------------------------|-----------------------------------------------------------------------------------------------|------------------------|---------------------------------------|----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|
| PO Bo | ory Program Sample Management Offic ox 818 Alexandria, VA 22313 I-557-2490 FTS 557-2490 | [®] & Chain | of Custody R Organic CLP Analysis) | ecord | (il applicable) | 7553 |
| i | | 4. Dato Shippo | d Carylor, | | 6. Prosor- | 7. Samplo |
| 1. Project Code Account Code CITTOPFAX 1022 | 1 10 Fef | 12-70-91 | 1 / 1 1 1- | x116255 | vative | Description |
| Regional Information | Sampler (Name) | Airbill Number | of Miloutper | 14-1612 | (Enter in Column D) | (Enter In Column A) |
| | Mile Mactin | 1 766 | 705574 | | , | 1. Surface Water |
| Non-Superfund Program | Sampler Signature | 5. Ship To | 1000 | . 44 i i | 1. HCl 2. HNO3 | 2. Ground Water |
| | I what well | / VI | mpuchem Environ | Mfillifa [| 3. NaHSO4 4. H2SO4 | 3. Leachate 4. Rinsate |
| Site Name | 3. Type of Activity Remodial | Horroval 4(1) | d Silican Prive | , | 5. Oiher | 5. Soil/Sødiment 6. Oil (High only) |
| | SF Remodial RD REM | | | | (Spealy) 6. Ico only | 7. Waste (High only) |
| City, State Site Spill ID | - PRPL_JPA [] RA [T] REN | a i i i Nesearen | Triangle Kirk, | | N. Not | 8. Other (Specily) |
| | ST SSI O&M OIL FED LSI NPLD US | T ATTN: Kic | hard Bloom 9) | 9-474-7033 | preserved | <u> </u> |
| CLP A B C C | | F Regional Specific | G Station | H Mo/Day/ | Sampler Corresp. | K Enter Appropriate Qualifier |
| Numbers # Low Type: val | itive High | Tracking Number | Location | Year/Time | Initials CLP Inorg. | for Designated Field QC |
| (from Roy 7 High Grap Ro | only | or Tag Numbers | Number | Sample Collection | Samp. No. | 8 = Blank S = Spiko D = Dupikato |
| labels) | OX 6 VOA BNA Pest ARO/ PCB TOX | | | 00110011011 | | PE = Portorm, Eval. = Not a QC Sample |
| TM 207 5 6 6 | | 96514737 | 6P-15-4 | 12/8/96/1115 | mm | = 110, Q Q O O O O O O O |
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| #M2001 | | 76514 22 | 6P-8B2 | 12/17/96/330 | | |
| 5/1173 | | 96514 13 | 6P12-B-7 | 12/18/8/920 | | |
| Tm^{19} | | 765/453 | GP-9-/ | 12/17/901307 | | |
| 1-1017/1-1/1-1/1-1-1-1-1-1-1-1-1-1-1-1-1-1-1 | - - | 9651446 | OP-16-9 | 13/18/196 1201 | <u> </u> | |
| 2m/79 4 5 14 | | 9651438 | 16P-13-8 | 12/18/96/130 | | |
| Shipment for Case Page 1 of | Sample used for a spike and/or | r duplicate Ad | lditional Sampler Sign | atures . | Clain of Custody S | eal Number |
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| | Data / Time | | STODY RECORD | | 5 | |
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| Relinquished by: (Signature) | Date / Time Received by: | (Signature) | Relinquished by: (S | ignature) | Date / Time Recei | ived by: (Signature) |
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| Relinquished by: (Signatur)) | Date / Time Received for L | aboratory by: | Date / Time | Remarks Is cu | Istody seal Intact? Y/N | /none |
| W - h W | (Signature) | | Late / Tille | | in a second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second seco | ···· |
| ///CILI / CZZINE 12- | 70-6 1500 | , | | | · | , |
| EPA Form 9110-2 (Rev. 5-91) Replaces EPA | Form (2075-7), previous edition whi | Ich may be used | Split Samples | Accepted (Signa | ature) | |
| DISTRIBUTION: | | | | Declined | | |
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| Non-Superfund Program Sampler Signature S. Ship To Atth: Richard Bloom S. HNO3 S. Leachatte Site Name Site Name Site Name See Removal Removal Removal Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution | e liment n only) High only) |
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| JM181 1 1 96514746 GW 2 12/18/96 120) | |
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| Shipment for Case Page 1 of Sample used for a spike and/or duplicate complete? (Y/N) Sample used for a spike and/or duplicate Additional Sampler Signatures Chain of Custody Seal Number | |
| CHAIN OF CUSTODY RECORD | |
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| EPA Form 9110-2 (Rev. 8-91) Replaces EPA Form (2075-7), previous edition which may be used DISTRIBUTION: Blue - Region Copy Pink - SMO Copy White - Lab Copy for Return to Region Yellow - Lab Copy for Return to SMO Spilt Samples Accepted (Signature) Declined SEE REVERSE FOR ADDITIONAL STANDARD INSTRUCTIONS 034433 | |

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| MEH | A Coa | nvact Labo Po | ratory Pr D Box 818 703-557- | ogram S 3 Alexan 2490 P | Sample I Idria, VA | Managoi 22313 | nent Oil | lico | & Cha | in | of Custody F Organic CLP Analysis | Record | (II applicat | olo) | Case No. 25253 |
|-----------------------------------------------------------------------------------|--------------------------|----------------------------------------|------------------------------------|-------------------------------|----------------------------------|---------------------------------|-----------------------------|-----------|------------------------------------------------|----------|--------------------------------------|---------------------------------------------------|----------------------------------|-------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|
| 1. Project Code TEC-680A Regional Information | | Code FAXIOT | | Region | | EV-1 | | / r | 4. Date Shi 2-20-4 Airbill Num | 96 96 | | Express n4 | - C | Preser- rative Enter in Diumn D) | 7. Sample Doscription (Enter In Column A) 1. Surface Water |
| Non-Superfund Pro | 2 | Site Spill | 3. SF PF ST FE | Type of | Activit Pre- Remedia PA | RIFS RD RA O&M NPLD | CL PRE PRE OI | 1 [1] | ATTIV. | O Lai | Silicon Drive ch Trigogrepor | 119-474-103 | 2. 3. 4. 5. 6. N. | HCI HNO3 NaHSO4 H2SO4 Olher (Spedly) Ica only Not preserved | 2. Ground Water 3. Leachate 4. Rinsate 5. Soil/Sodiment 6. Oil (High only) 7. Waste (High only) 8. Other (Specily) |
| CLP Sample Numbers (Irom labels) | er Conc. Low n Med | C Sample Type: Comp / Grab | vative from | | RAS An | Pest PCB | High only ARO/ TOX | Track | F anal Specific ling Number g Numbers | : | G Station Location Number | H Mo/Day/ Year/Time Sample Collection | Sample Initials | CLP Ino Samp. N | rg. for Designated Field QC 8 = Blank S = Spike 0 = Ouplicate PE = Perform, Eval. — = Not a QC Sample |
| JM190 2 | - low | 6rah | 6 | | 3 | 3 | | 965 | 1470 | 5 | DW6 | 14/96 | m | M7980 | (3) |
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| Shipment for Case | Page | 1 of | Sa | mple u | sed for | r a spik | e and/ | or duplic | ale | Add | ditional Sampler Sig | natures | Chain | of Custody | y Seal Number |
| complete? (Y/N) | | | | | | | | | CHAIN OF | CUS | STODY RECORD | | | | |
| Relinquished by: | Int. | | Dat (2/20/ | e / Tim | 600 | | · | (Signa | ture) | | Relinquished by: (| Signature) | Date / TI | | celved by: (Signature) |
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| EPA Form 9110-2 (R DISTRIBUTION: Blue - Region Copy Copy for Return to S | Pink - S | , | | - | | | | | | | Split Samples SEE REVERSE FOR |] Declined | nature) | PROTECULA | 0011001 |

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| Contract Laborate | ory Program. Samula Managamont Office | Organic Traffic He | P | SAS No. (If applicable) | Case No. | | |
|--------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|--|--|
| PO Bo | ory Program Sample Management Office ox 818 Alexandria, VA 22313 3-557-2490 FTS 557-2490 | & Chain of Custody Record (For Organic CLP Analysis) | | | 25253 | | |
| 1. Project Code Account Code (1 F10PT-AX) Rugional Information | 2. Region No. Sampling Co. Sampler (Name) | 4. Date Shipped Carrier 1.2.70/96 Airbill Number | me. | 6. Preservative (Enter in Column D) | 7. Sample Description (Enter in Column A) | | |
| Non-Superlund Program | Samplor Signature | 5. Ship to Compachern ENTI | EONMENTAL | 1. HCl 2. HNO3 3. NaHSO4 4. H ₂ SO4 | 1. Surface Water 2. Ground Water 3. Leachate 4. Rinsate | | |
| Site Name City, State Spill ID | 3. Type of Activity Remodial Removed Property RIFS CLEM REMARKS REMARKS REMARKS REMARKS REMARKS REMARKS REMARKS REMARKS REMARKS REMARKS REMARKS REMARKS REMARKS REMARKS REMARKS REMARKS REMARKS REMARKS REMARKS REMARKS REMA | PONMENTAL LICH 194 Park | 5. Oiher (Spedly) 6. Ice only N. Not preserved | 5. Soil/Sodiment 6. Oil (High only) 7. Waste (High only) 8. Other (Specily) | | | |
| Sample Enter Conc. Sample Pre Numbers # Low Type: va from Med Comp./ from | ative Training Training | gional Specific acking Number Location Number | H Mo/Day/ Year/Tirne Sample Collection | Sampler Corresp. Initials CLP Inorg. Samp. No. | K Enter Appropriate Qualifier for Designated Fleid QC B = Blank S = Spike D = Depikate PE = Perkyrn, Eval. — = Not a QC Sample | | |
| JM 209 5 L G (| | 514742 6P-17-9 51474/ 6P-17-2 | 12/18/96 13/16 | ny | MSD | | |
| JM 192 JM 202 V | 1 96 | 65147486P10-7 65147486P-10-2 65147446P-18-8 | 12/15/96 15/20 | 7). | | | |
| JM210 | 7 26 | S14743 GP-18-4 | 12/18/86 1405 | 9-1 | | | |
| Shipment for Case complete? (Y/N) | Sample used for a spike and/or dup | Additional Sampler Sig | natures | Chain of Custody Se | eal Number | | |
| | | CHAIN OF CUSTODY RECORD | | | | | |
| Relinquished by: (3/gnature) | Date / Time Received by: (Sign $20/9(a)$ 16.67) | Rollnquished by: (| Signature) | Date / Time Recel | ved by: (Signature) | | |
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| EPA Form 9110-2 (Rev. 5-91) Replaces EPA DISTRIBUTION: Blue - Region Copy Pink - SMO Copy V Copy for Return to SMO | | Yellow - Lab | Split Samples Accepted (Signature) Declined SEE REVERSE FOR ADDITIONAL STANDARD INSTRUCTIONS (A) (A) (A) (A) (A) (A) (A) (A) (A) (A) | | | | |

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| 1. Project Code Account Code TO CALLY 97TWA-A-X | 2. Region No. Sampling Co. | 4. Date Shipped | Carrier | | 6. Pro | | 7. Sample Description |
| Regional Information | Sampler (Name) | h/20/96 Airtill Number | Kuber | re | | ter in | (Enter` |
| Regional information | $\frac{1}{2}$ | . /// | 71557 | () | | mn D) | in Column A) |
| Non-Superfund Program | Sampler Signature | 5 Ship To | | 7 | 1. HC 2. HN | 03 | Surface Water Ground Water |
| | - Wall | 1 Compu | chem GNUIR | WINKNIN | 3. Nal 4. H ₂ s | HSO₄ | Leachate Rinsate |
| g Sale Name | lead Box BIES TO CLE | lemoval 4600 | Chem GNUIR Silicon 1 | SPive | 5. Oth | ner pecily) | 5. Soil/Sediment 6. Oil (High only) |
| yc ec | SF Remedial RD REM | RISCAR | ch Triangle | = Pank | 6. lcs N. No | only only | 7. Waste (High only) 8. Other |
| ਦੇ ਉਹਾਂ, State Site Spill ID | ST SSI O&M OIL FED LSI NPLD UST | ATTN: N | ch Truangle C 27709 | 1 919 4717 033 | | served | (Specify) |
| CLP A B C D | E | Picha | na - 1000 | <u>4 14 1000 </u> H | | J | К |
| Sample Enter Conc. Sample Pres | | Regional Specific Tracking Number | Station Location | Mo/Day/ Year/Time | Sampler Initials C | Corresp. CLP Inorg. | Enter Appropriate Qualifier for Designated Field OC |
| //rom Med Comp./ fro | om night | or Tag Numbers | Number | Sample Collection | | Samp. No. | B = Blank S = Spike |
| labels) 60x / Flight Glas 60x | x 6 VOA BNA Pest ARO/ PCB TOX | | | Concellon | | | D = Duplicate PE = Perform, Eval. — = Not a OC Sample |
| TM194 5 L G C | 01 | 707 | 6P-1-4 | 12/16/16 | m | | |
| TM167 / 1 | | 712 | 6P-3.7. | 12/14/96 1531 | | | |
| TM 166 | | 708 | GP-1-7 | 12/10/96/11/0 | | | |
| 7m 195 | | | 6P-3-2 | 12/16/16 15/1 | | | |
| 87m 203 | | 7/5 | GP-4-7 | 12/14/96/16/5 | 7-7 | | |
| TIM203 | | 750 | G-P-11-2 | 12/17/96/152 | | | <u> </u> |
| TM196 | | | 6P-4-7 | 17/14/96 1600 | | | |
| 10197 | | | GF-SB-1 | 12/14/96 1010 | | | |
| 7m 204 | | | (P) DR- 1 | 12/17/96 1020 | 1 | | |
| Shipment for Case Page 1 of | Sample used for a spike and/or | duolicate Ado | GP-12B-2 Iltlonal Sampler Sign | | Chain of C | Custody Se | l al Number |
| complete? (Y/N) | , , , , , , , , , , , , , , , , , , , , | 7.55 | | | | outlier, co. | |
| .,2 | | CHAIN OF CUS | STODY RECORD | | | | |
| Figure (Signature) | Date / Time Received by: (| Signaturo) | Relinquished by: (8 | Signatura) | Date / Time | Receiv | od by: (Signature) |
| 12/ | 0/96 1800 | _ | | | | | <u> </u> |
| 의 Pelinguished by: (Signature) | Date / Time Received by: (| Signature) | Relinquished by: (3 | Signature) | Date / Time | Receiv | ed by: (Signature) |
| חייונים | | | | | | | • |
| Relinquished by: (Signature) | Date / Time Received for La | aboratory by: | Date / Time | Remarks Is cu | stody seal in | ntact? Y/N/i | none |
| = = | (Signature) | | | | | | |
| EPA Form 9110-2 (Rev. 5-91) Replaces EPA | Form (2075-7) previous adition whi | ch may be used | Split Samples | Accepted (Signa | ture) | | |
| DISTRIBUTION: | | | | Declined | | | |
| Blue - Region Copy Pink - SMO Copy W Copy for Return to SMO | SEE REVERSE FOR ADDITIONAL STANDARD INSTRUCTIONS • • • • • • • • • • • • • • • • • • • | | | | | | |

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| Contract Lal | States Environmental Protection Agency boratory Program Sample Management Office PO Box 818 Alexandria, VA 22313 703-557-2490 FTS 557-2490 | & Chain o (For Or | c Traffic Rep f Custody Ro rganic CLP Analysis) | SAS No. (il applicable) | Caso No. 25253 | |
|---------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|--------------------------------------------------------------------|---------------------------------------------------|-----------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| 1. Project Code TEC-80A 97Tb/FAX/67 Regional Information | 22 Region No. Sampling Co. Samplor (Name) M. Ke M. Liv | 4. Date Shipped 12-20-96 Airbill Number | Carrior Airbane Exp 70552 | Ye5 | 6. Preservative (Enter in Column D) 1. HCl | 7. Sample Description (Enter In Column A) 1. Surface Water |
| Non-Superfund Program Site Name (:- () | Sampler Signature 3. Type of Activity Remedial Rem | 5. Ship To Comp | Juctem Envirance | ental | 2. HNO3 3. NaHSO4 4. H ₂ SO4 5. Oiher | 2. Ground Water 3. Leachale 4. Rinsate 5. Soil/Sodiment |
| City, State Site Spil | SF Remodial RD REMA | Research T | O Silicon Priv Triangle Park, and Bloom 94 | N C 27709 1-474-7033 | (Spealy) 6. Ice only N. Not proserved | 6. Oil (High only) 7. Wasto (High only) 8. Other (Spealy) |
| CLP Sample Numbers (Irom labels) A Enter Conc. Enter Conc. How Type: Wed Comp./ Grab | vative THigh Tr | F egional Specific racking Number or Tag Numbers | G Station Location Number | H Mo/Day/ Year/Time Sample Collection | Sampler Initlals Corresp. CLP Inorg. Samp. No. | K Enter Appropriate, Qualifier for Designated Field QC B - Blank S - Spike D - Duplicate PE - Perform, Evol Not a OC Sample |
| 1m185 2 lan 600 | | 144 | DU-1 1 | 2/14/96 130t | m MJM858 | |
| tm 186 1 Lov brub | 19 1 1, 1, 1, 196 | 514701 | DW 3 1 | 2 16/96 1410 | | |
| JM 187 2 Low Grub | 6 / / / 96 | 514/02 | DW3 | 2 /16/86 <i>12</i> 35 | 1 M5N860 | |
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| Shipment for Case complete? (Y/N) | Sample used for a spike and/or du | · . | lional Sampler Signa | tures | Chain of Custody Se | al Number |
| Relinquished by: (Signature) | Date / Time Received by: (Sig | CHAIN OF CUST | ODY RECORD Relinquished by: (Si | anatura) | Date / Time Receiv | red by: (Signature) |
| Whate | 12/20/a. 1600 | N. | _ | | | |
| Reilryquished by/. (Signature) | Date / Time Received by: (Sig | gnature) F | Relinquished by: (Signature) Date / Time Received by: (Signature) | | | |
| Relinquished by: (Signature) | Date / Time Received for Labo (Signature) | oratory by: | Date / Time | Romarks Is cu | stody seal Intact? Y/N/ | none |
| DISTRIBUTION: | EPA Form (2075-7), previous edition which which white - Lab Copy for Return to Region | Yellow - Lab | | ccepted (Signa Declined DITIONAL BTANDA | IUTO) | |

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|----------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|--------------------------------------|--------------------------------------------------------------|--------------------------------------------------------------|--------------------------------------|---------------------------------------------------|------------------------------------------------------------|---------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| W L / | YU BOX 703-5 | 818 Alexandria VA 57-2490 FTS 557 | . 22313 -2490 | & Chain | of Custody F Organic CLP Analysis | lecord | , ,, | • | |
| Non-Superfund Progration Names | ACCOUNT COUB 17970PFAX 1077. LA 90 | 2. Region No. S | Sampling Co. Et E Marti Iro File ry Remedial | 4. Date Shippe 1Z-Zo-YC Airbill Number 4 Z | d Carrier | 273 | 1. HG 2. HR 3. NG 4. HZ 5. OG 6. IC N. N | tive oter in oumn D) CI NO3 aHSO4 cSO4 ther Specify) co only | 7. Sample Description (Enter In Column A) 1. Surface Water 2. Ground Water 3. Leachate 4. Rinsate 5. Soil/Sodiment 6. Oil (High only) 7. Waste (High only) 8. Other (Specify) |
| CLP Sample Numbers (from labels) A Enter # from Box 7 | B C D Conc. Sample Pres Low Type: vativ Med Comp / fror High Grab Box | n e | | F Regional Specific Tracking Number or Tag. Numbers | G Station Location Number | H Mo/Day/ Year/Time Sample Collection | | J Corresp. CLP Inorg. Samp. No. | K Enter Appropriate Qualifier for Designated Field QC B = Blank S = Spike D = Duplicate PE = Porterm, Eval. — = Not a OC Sample |
| JM180 2 | L-6-1 | . 2 | | | 6W1 | | any | | |
| JM181 Z | <u> </u> | 2. | | 746 | GW2 | 12/12/84.03 | 9 | | |
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| 11,89-5 | | 12 | | 704 | DW- 5 | 12/12/9/ | 1-1-1 | | 1 3 |
| PM180 2 | | 12 | | 745 | 611)-1 | 1-71-71-4 | | | |
| Shipment for Case Page 1 of C Sample used for a spike and/or duplicate Additional Sampler Signatures complete? (Y/N) | | | | | | naturos | Chaln of | Custody Se | eal Number |
| | | Date / Time | Designation | | STODY RECORD | | 5-4-775- | 10 | |
| Relinquished by: (Si | | Date / Time | Received by: | (Signature) | Relinquished by: (| Signature) | Date / Tim | e Hecely | ved by: (Signature) |
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| Figlinquished by: (Si | gnature) | Date / Time | Received for (Signature) | Laboratory by: | Date / Time | Remarks Is cu | ustody seal | Intact? Y/N/ | /none |
| EPA Form 9110-2 (Rev. DISTRIBUTION: | • • | | | · | | Accepted (Sign | ature) | | |
| Blue - Region Copy Pink - SMO Copy White - Lab Copy for Return to Region Yellow - Lab Copy for Return to SMO | | | SEE REVERSE FOR ADDITIONAL STANDARD INSTRUCTIONS O A A A COC | | | | | | |

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| | PA | 7 ~ | ntract Lab | O Box 81 703-557 | 18 Aloxa 7-2490 | ndria, V. FTS 55 | A 22313 7-2490 | | inco | & Ch | ain For | of Cus Organic C | Stody i LP Analysi | Red | cord | | | , | | 1 | 28 | 5,25 | 3 |
| 1. Project Co. TEC-69 Regional Infor | 87A | Accoun | | 2 دده | . Regio À ampler | n No. | Samplii <i>E</i> | | | 4. Date S 12-20 Airbill Nu | Shippo 17 –ز | d Carrior | irkor | in c | | | | Pre vati (Ent | | | 7. Sa De (E | | |
| i i ogrania i i i i o | | | | | | | 1urt | 1 | | | زے | <u> 205</u> | 99O | > . | ヘクマ | - ' | | | | Ì | | urface Wat | |
| Non-Superlur | nd Prog | ram | : | S | ampier | Signal Signal | uro i-uj | St | Z | 5. Ship | <u>`</u> ~ | onfaction S | | | | | : | 1. HC 2. HN 3. Na 4. H ₂ | 103 HSO₄ | | 2. G 3. Lo 4. R | round Wate eachate insate | er er |
| Site Name | | | | 3. | Type c | Activi | ty A. | modial | Removal EME | , | 46 | 00 5 | ilicon | δ; | · · | | . : | 5. Oth | ner Specify) | | 6. O | oil/Sedimer il (High onl | y) |
| V:} | <u>u</u> | | | 6 | F _{RP} | Remodi. | "RIFS "RD] RA | HAI | EMATEM | | Rc: | s. Tri | ingle | Per | 14/1 | VÇ | | | a only | - } | 7. W 8. O | /asto (High ther | only) |
| City, State | | | Site Spill | IU S | эт 🗀 | SSI_ | O&M NPLC | | | ATTN | K | ichard | Bles | 77 今 | · | | | pro | served | | · | (Specily) | |
| CLP Sample Numbers (Irom labels) | A Enter # Irom Box 7 | B Conc. Low Med High | Sample Type: Comp./ Grab | Preser vative from Box 6 | | RAS A | nalysis | High only ARO/ TOX | Track or Ta | F onal Spec ing Numb g Numbe | ific per rs | Sta Loc | 3 tion ation nber | | H Mo/D Year/I Sam Collec | ay/ imo ple | Samp Initia | is (| J Corresp CLP Inor Samp. N | g. | for Dosi | K propriate Qu gnated Field Stank S = Splk 0 = Duplicate Perform, Eval Not a OC Samp | d QC vo . : |
| TM183 | 12 | 1 | (>- | , | 7. | ļ <i>-</i> | | 10% | 4/25 | 1484 | | RNS | > | 1/3 | list | 1 1400 | ma | 4 | | | | to a co comp | " — |
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| Shipment for complete? () | | Page | 1 of | s | ample | used fo | r a spik | ke and/ | or duplic | ale | Ac | ditional Sa | ımpler Sig | natu | res | | Cha | in of (| Custody | Sea | l Numbe | r | |
| | | | | | | | | | | CHAIN | F CU | STODY R | ECORD | | | | ··· | | | | | | |
| Relinquished | • | ignature | - 1 | , | ate / Tin | 18 | Receiv | ved by: | : (Signa | ture) | | Relinquis | shed by: 1 | (Sign | ature) | | Date / | Time | Rec | elve | d by: (S | Signature) | |
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| Copy for Retur | 11 10 SM | U | | | | | | | | | | SEE REVE | おうた トリH | ハレロ | HONAL | JIANUA | IND IND | INUC | くいしいり | 17 | 7 /1 / | F + F 1 F | |

| Contract Laborato | ry Program Sample Management Office x 818 Alexandria, VA 22313 -557-2490 FTS 557-2490 | Organic Traffic Report | (il applicable) | Case No. |
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| | | & Chain of Custody Reco | a | 25253 |
| 1. Project Code Account Code 17-TIO PHY 10-27-LA-00 Regional Information | Samples (Name) | 4. Date Shipped Carrier 12-10-46 ATOMO Airbill Number | 6. Preservative (Enter in Column D) | 7. Sample Description (Enter In Column A) |
| Non-Superfund Program Site Name Sity, State Sity, State | Sampler Signature 3. Type of Activity Remodial Removal cod Pre- RIFS CLEM REMA PRP PA RA REM ST SSI O&M OIL FED LSI NPLD UST | 420899027 5. Ship To Compuchen Environ mental 4600 Silicun Drive Research Triangle Park, MC 23 ATTN: Richard Bloom | 1. HCl 2. HNO3 3. NaHSO4 4. H2SO4 5. Other (Specily) 6. Ice only N. Not preserved | 1. Surface Water 2. Ground Water 3. Leachate 4. Rinsato 5. Soil/Sodiment 6. Oil (High only) 7. Waste (High only) 8. Other (Specify) |
| CLP A B C D Sample Enter Conc. Sample Pre Numbers # Low Type: val | ser RAS Analysis Region | F G nal Specific Station M ing Number Location Ye g Numbers Number S | H J J Corresp. ar/Time Initials CLP Inorg. ample Samp. No. | K Enter Appropriate Qualificor Designated Field QC B = Blank S = Spiko D = Duplicate PE = Portorm, Eval. — = Not a QC Samplo |
| -CAACLO COLONIA | | 4741 617-2 12-15 4742 617-7 12-18 4743 618-2 12-18 4743 618-8 12-18 4731 61282 12-18 4732 61287 12-18 4733 61387 12-18 4734 611387 12-18 4738 615-8 2-18 | 96 121) frum 96 1340 96 1340 96 1340 96 1340 96 1435 96 1943 96 0935 96 0945 96 1340 Chain of Custody Se | 5,4) Sal Number |
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| EPA Form 9110-2 (Rev. 5-91) Replaces EPA DISTRIBUTION: Blue - Region Copy Pink - SMO Copy W Copy for Return to SMO | | llow - Lab Decline | | |

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| Regional Information | Sampler (Name | A - \> · | Airbill Number | 7:0011 | | | lumn D) | în Column A) |
| Non-Superlund Program | Sampler Signat | | 5. Ship To 0 | 1705524 ngương Environg co Silicon Pril | Nenta) | 3. N | NO3 aHSO₄ | 1. Surface Water 2. Ground Water 3. Leachate 4. Rinsate |
| Site Name | 3. Type of Activi | RIFS CLEM | 1 46 | 00 Silicon Pril | ie | 5. O | 12804 Other (Sassifu) | 5. Soil/Sødiment 6. Oil (High only) |
| City, State Site Spill ID | SF Remodi | PA REMA O&M OIL | | Transle Park, A | | 6. le N. 1 | 'Spocify) co only Not rosorvod | 7. Wasto (High only) 8. Other (Specify) |
| | FED LSI | | 1 MIN. 190 | | 719-474-7033 | · · · · · | , | |
| Sample Enter Conc. Sample Pr Numbers # Low Type: v. | | nalysis Regio | onal Specific king Number ag Numbers | G Station Location Number | H Mo/Day/ Year/Time Sample | Sampler Initials | Corresp. CLP Inorg. Samp. No. | Enter Appropriate Qualifier for Designated Field QC |
| labels) Box 7 High Grab B | ox 6 VOA BNA | Pest/ ARO/ PCB TOX | | , 110111001 | Collection | | | B = Blank S = Spłko D = Duplicato PE = Porform, Eval, = Nox a OC Samplo |
| 7/1198 5 4 G | 6 117 | | -6B-2 | 718 | 12/17/96/150 | u | | |
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| EPA Form 9110-2 (Rev. 5-91) Replaces EPA | Form (2075-7), pro | vious edition which may | y be used | | , | | | |
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| | Shipment for complete? (Y | | Page | 1 of | - ⁵ | Sample | used fo | r a spil | ke and/ | or duplica | ate A | dditional San | npler Sig | natures | | Chain | of Custo | ody Se | al Number | |
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| | D Box 818 "Alexandria", V 703-557-2490 - FTS 55 | A 22313 7-2490 | | OT CUSTODY F r Organic CLP Analysis | | | | 75753 |
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| Regional Information | Sampler (Name | | Airbill Number | | | | nn D) | in Column A) |
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| Non-Superlund Program | Sampler Signal | bro I | 5. Ship To Col | 208990 navelam Favironman no Silicon Orive | 114] | 2. HNC 3. Nat 4. H ₂ S | D3 ISO₄ | 2. Ground Water 3. Leachate 4. Alnsate |
| Site Name | 3. Type of Activi | ity Remodial Removal | 1 4 <i>4.0</i> | 10 Siliron Urive | | 5. Oth | or | 5, Soil/Sediment 6, Oil (High only) |
| Nike. | SF Remodi | ⇒'RD [T]REMA[T] | Passerval T | riaglefuk, NC | 777.00 | 6, co | oaly) only | 7, Waste (High only) |
| City, State Site Spill | ID PRP PA | RA REM OIL | I rescontil | Malgurial /VC | 21701 | N. No | t sorved | 8. Other (Specify) |
| | ST SSI | O&M OIL NPLD UST | ATTN: () | ichard Bloom | | pros | 101400 | "" |
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| TA700 E 1 Ch | 7 1 1 | 9/15 | 111721 | C016-7 | 19.0/ 1114 | | | — = Not a OC Sample |
| M 208 5 Low Gep | -0 | 700 | 17739 | 670-6 | 12-10-76 11-10 | DMM | | |
| J/1207- 5 Low Grab | 0 1 - | 1-105 | 14 TOT | 6117-4 | 12-13-96 1110 | <u> </u> | | |
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| | | | CHAIN OF CU | ISTODY RECORD | | | | |
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| roj. OII.: <u>Alv. K. "M</u> | <u>c(Tel.II</u> | CI Data for STORET | | Recorder: \\ | |
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Sample Plan Alteration Form

Project Name and TDD Number: Former Nike Launch Site #81 06-01-0035

Material to be Sampled: Sediment Surface Water QC Sample Groundwater

Measurement Parameter: N-nitrosodimethylamine (NDMA), perchlorate, unsymmetrical dimethylhydrazine (UDMH), volatile organic compounds (VOCs), semivolatile organic compounds (SVOC), chlorinated pesticides (pesticides), polychlorinated biphenyls (PCBs), target analyte list (TAL) metals

Standard Procedure for Field Collection and Laboratory Analysis (cite reference): Sediments, surface water, QC samples, and groundwater samples were collected following Ecology and Environment, Inc., Standard Operating Procedures

Reason for Change in Field Procedure or Analysis Variation: Sediment, surface water, and a trip blank QC sample were added to determine if the surface water pathway was a contamination pathway from the Former Nike Launch Site #81.

Variation from Field or Analytical Procedure: The two sediment samples were analyzed for all parameters listed above. The trip blank was analyzed for VOCs. The three surface water samples were analyzed for all parameters listed above. A rinsate blank sample was not collected as listed in the SQAP as all sampling equipment was dedicated. Two groundwater samples were not collected as listed in the SQAP as property owners denied access to their wells.

Special Equipment, Materials, or Personnel Required: Additional sampling jars (EnCoretype samplers, 8 ounce glass jars, 1-liter polyethylene bottles, 32-ounce amber glass jars, and 40-milliliter glass vials) and preservatives (hydrochloric acid and nitric acid).

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|-----------------------------|--------------|
| Initiator's Name: | Date: 612-06 |
| Project Manager: Man Modela | Date: 42-06 |
| QA Officer: Man Nowle | Date: 612-06 |



GEN RECEIVED Environmental OF 2006 Cleanup Office UNITED STATES ENVIRONMENTAL PROTECTION AGENCY **REGION 10**

1200 Sixth Avenue Seattle, Washington 98101

July 6, 2006

Reply To

Attn. Of: OEA-095

MEMORANDUM

Data Validation for Former Nike Launch Site #81 SI, SUBJECT:

Case# 35417, SDG: MJ73T9, Inorganic Analysis

FROM:

Donald Matheny, Chemist

Technical Support Unit, OEA

TO:

Ken Marcy, Site Assessment Manager

Office of Environmental Cleanup (ECL-115)

CC:

Mark Woodke, Ecology & Environment

The data validation of inorganic analyses for the above sample set is complete. Three (3) water samples were analyzed for total elements by Bonner Analytical, Hattiesburg, MS. Sample numbers for this delivery group are as follows:

> MJ73T9 MJ73W1 MJ73W3

DATA QUALIFICATIONS

The following comments refer to the lab's performance in meeting the quality control specifications outlined in the "CLP Statement of Work (CLP-SOW) for Inorganic Analysis, rev. ILM05.3", the "USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review" and the judgment of the reviewer. The comments presented herein are based on the information provided for the review.

1.0 TIMELINESS - Acceptable

The holding time from the date of collection to the date of digestion and analyses were met for all elements (180 days, mercury 28 Samples were collected on 6/6/06. ICP-AES and mercury analyses were conducted on 6/13/06.

2.0 INSTRUMENT CALIBRATION/VERIFICTION - Acceptable

For ICP-AES analysis, instrument calibration was performed in accordance with method requirements. Recoveries for instrument verification standards (93-106%) met the frequency (10%) and recovery (90-110%) criteria.

For mercury, a blank and five standards were digested for instrument calibration. The correlation coefficient (0.999) met the criterion (> 0.995). Recoveries for verification standards (95-104%) met the frequency (10%) and recovery (80-120%) criteria.

Quantitation verification standards met both the frequency and recovery criteria for all elements.

3.0 ICP-AES INTERFERENCE CHECK SAMPLE (ICS) - Acceptable

An ICS was analyzed at the required frequency for each analytical run. ICS recoveries met the recovery criterion (80-120% or \pm 2xCRDL) for all elements.

4.0 LABORATORY CONTROL SAMPLES (LCS) - Acceptable

An aqueous Laboratory Control Sample was digested and analyzed. Percent recoveries (97-109%) were within the criterion (80-120%).

5.0 BLANKS

Preparation and instrument control blanks were prepared and analyzed in accordance with method requirements. Blank results were either non-detected or below a factor that could impact analytical sample results for all analytes with the exception of aluminum and zinc. Affected aluminum and zinc results were qualified (U).

6.0 MATRIX SPIKE ANALYSIS

A matrix spike was analyzed for sample MJ73W3. Percent recoveries (98-111%) met the recovery limits (75-125%) for all elements with the exception of arsenic (72%). Arsenic data were qualified (JL or UJL) and may be biased low.

7.0 DUPLICATE SAMPLE ANALYSIS - Acceptable

A duplicate sample was analyzed for sample MJ73W3. Relative percent difference results (\leq 1%) were within the control limits (\pm 20% or \pm CRDL) for waters.

8.0 ICP-AES SERIAL DILUTION

A five-fold serial dilution was analyzed for sample MJ73W3. Percent differences (< 4%) met the control limits (< 10%) for all applicable elements with the exception of aluminum (18%) and calcium (37%). Aluminum and calcium values were qualified (JL) and may be biased low.

9.0 ASSESSMENT SUMMARY

The following is a summary of qualified data:

A number of reported values for aluminum and zinc were qualified (U) due to the detected presence of these analytes in the preparation and/or instrument verification blanks.

Arsenic data were qualified (J or UJ) due to a low matrix spike recovery. Arsenic values may be biased low.

Aluminum and calcium data were qualified (JL) due to high percent differences for the serial dilution analysis. Reported values for these analytes may be biased low.

DATA QUALIFIERS

- U The material was analyzed for, but was not detected above the associated value. The associated value is either the sample quantitation limit or the sample detection limit.
- J The associated value is an estimated quantity.
- R The data are unusable. The analyte may or may not be present in the sample.
- UJ The analyte was analyzed for, but was not detected. The associated value is an estimate and may be inaccurate or imprecise.

PROJECT SPECIFIC DATA QUALIFIERS:

- L Low bias.
- H High bias.
- K Unknown Bias.
- Q Detected concentration is below the method reporting limit/ Contract Required Quantitation Limit.

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

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| Lab Name: Bonner | | nalytical Testing C | ompa Contract: | 68W02067 | | | |
|------------------|------------|---------------------|----------------|------------|----------|--------|--|
| Lab Code: | BONNER | Case No.: 35417 | NRAS No.: | | SDG NO.: | MJ73T9 | |
| Matrix (soi | .1/water): | WATER | Lab Sample ID: | BT39792 | | | |
| Level (low/ | med): | LOW | Date Received: | 06/08/2006 | | | |

Concentration Units (ug/L or mg/kg dry weight):

0.0

% Solids:

UG/L

| CAS No. | Analyte | Concentration | C | Q | М |
|-----------|-----------|---------------|-----------|--------|----|
| 7429-90-5 | Aluminum | 174 | 8 | N A | P |
| 7440-36-0 | Antimony | 60.0 | ט | | P |
| 7440-38-2 | Arsenic | 10.0 | Ū | DF UJL | P |
| 7440-39-3 | Barium | 4.3 | -32 | · a | P |
| 7440-41-7 | Beryllium | 5.0 | ט | | P |
| 7440-43-9 | Cadmium | 5.0 | ט | | P |
| 7440-70-2 | Calcium | 5100 | | をゴレ | P |
| 7440-47-3 | Chromium | 0.50 | 3 | a | P |
| 7440-48-4 | Cobalt | 50.0 | Ū | | P |
| 7440-50-8 | Copper | 2.1 | 8 | a | P |
| 7439-89-6 | Iron | 150 | | | P |
| 7439-92-1 | Lead | 10.0 | <u></u> ד | | ₽ |
| 7439-95-4 | Magnesium | 1040 | æ | Q | P |
| 7439-96-5 | Manganese | 23.6 | | | P |
| 7439-97-6 | Mercury | 0.20 | ט | | CV |
| 7440-02-0 | Nickel | 1.1 | 3 | Q | P |
| 7440-09-7 | Potassium | 1760 | 8 | a | P |
| 7782-49-2 | Selenium | 35.0 | ט | | P |
| 7440-22-4 | Silver | 10.0 | Ū | | P |
| 7440-23-5 | Sodium | 2580 | ستد | a | P |
| 7440-28-0 | Thallium | 25.0 | Ū | | P |
| 7440-62-2 | Vanadium | 50.0 | Ū | | P |
| 7440-66-6 | Zinc | 7.9 | مخر | u | P |

7-10-06

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

| MJ7 | 3W1 | |
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| Lab Name: Bonner Analytical Testing Con | | | Contract: | 68W02067 | | | | |
|-----------------------------------------|--------------------|--------------------|----------------|-----------------|--------|----------|--------|--|
| Lab Code: | BONNER Case | No.: 35417 | NRAS No.: | SDG NO.: MJ73T9 | | | | |
| Matrix (so | il/water): WATER | | Lab Sample ID: | BT3 | 793 | <u>,</u> | | |
| Level (low | /med): LOW | | Date Received: | 06/0 | 8/2006 | | | |
| % Solids: | 0.0 | - | · | | | | | |
| Concentrat | ion Units (ug/L or | mg/kg dry weight): | UG/L | | | | | |
| | CAS No. | Analyte | Concentration | С | Q | м |] | |
| • | 7429-90-5 | Aluminum | 614 | | E JL | P | 1 | |
| | 7440-36-0 | Antimony | 60.0 | σ | | P |] | |
| • | 7440-38-2 | Arsenic | 10.0 | ט | みしなし | P | | |
| | 7440-39-3 | Barium | 5.8 | 3 | a | P | | |
| | 7440-41-7 | Beryllium | 5.0 | ש | | P |] | |
| | 7440-43-9 | Cadmium | 5.0 | ט | | P | | |
| | 7440-70-2 | Calcium | 6390 | | サブレ | P |] | |
| | 7440-47-3 | Chromium | 1.4 | 3 | a | P | | |
| | 7440-48-4 | Cobalt | 50.0 | ס | | P |] . | |
| | 7440-50-8 | Copper | 2.1 | 8 | Q | P | | |
| | 7439-89-6 | Iron | 452 | | | P | 7-6-06 | |
| | 7439-92-1 | Lead | 10.0 | ס | | P | 7-6 | |
| | 7439-95-4 | Magnesium | 1020 | 3 | a | P | | |
| | 7439-96-5 | Manganese | 24.6 | | | P |] | |
| | 7439-97-6 | Mercury | 0.032 | J | a | CV |] | |
| | 7440-02-0 | Nickel | 1.6 | 8 | a | P | | |

7440-09-7

7782-49-2

7440-22-4

7440-23-5

7440-28-0

7440-62-2

7440-66-6

Potassium

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Thallium

Vanadium

Zinc

Silver

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EPA SAMPLE NO.

MJ73W3

| de: BON | NER Case N | No.: 35417 | NRAS No.: | | SDG | NO.: | MJ73T9 |
|-----------|------------------|-------------------|----------------|------|-------------|------|--------|
| (soil/wa | ater): WATER | | Lab Sample ID: | BT39 | 794 | | |
| (low/med) | : LOW | | Date Received: | 06/0 | 8/2006 | | |
| ds: | 0.0 | | | , | | - | |
| tration U | Jnits (ug/L or m | g/kg dry weight): | UG/L | | | | |
| | CAS No. | Analyte | Concentration | С | Q | м |] |
| | 7429-90-5 | Aluminum | 1030 | T | モゴレ | P | 1 |
| | 7440-36-0 | Antimony | 60.0 | Ū | | P | 1 |
| | 7440-38-2 | Arsenic | 13.9 | | おりし | P | 1 |
| | 7440-39-3 | Barium | 11.2 | 8 | Q | P | 1 |
| | 7440-41-7 | Beryllium | 5.0 | ט | | P | 1 |
| | 7440-43-9 | Cadmium | 5.0 | Ū | | P | 1 |
| | 7440-70-2 | Calcium | 5160 | 1 | サナレ | P | 1 |
| | 7440-47-3 | Chromium | 2.6 | J | Q | P | 1 |
| | 7440-48-4 | Cobalt | 50.0 | ט | | P | 1 |
| | 7440-50-8 | Copper | 3.5 | J | a | P | 1 ~~ |
| | 7439-89-6 | Iron | 730 | | | P | 10 |
| | 7439-92-1 | Lead | 10.0 | Ū | | P | 1 10 |
| | 7439-95-4 | Magnesium | 2170 | 3- | a | P | 1 |
| | 7439-96-5 | Manganese | 58.8 | | | P | 1 |
| | 7439-97-6 | Mercury | 0.20 | σ | | CV | 1 |
| | 7440-02-0 | Nickel | 3.3 | -تد | a | P | 1 |
| | 7440-09-7 | Potassium | 1320 | ستد | Q | P | 1 |
| | 7782-49-2 | Selenium | 35.0 | Ū | | P | 1 |
| | 7440-22-4 | Silver | 10.0 | Ū | | P | 1 |
| | 7440-23-5 | Sodium | 12300 | 1 | | P | 1 |
| • | 7440-28-0 | Thallium | 25.0 | Ū | | P | 1 |
| | 7440-62-2 | Vanadium | 3.9 | 3 | a | P | 1 |
| | 7440-66-6 | Zinc | 7.9 | 1 | J. | P | 1 |
| r Before: | YELLOW | Clarity Befor | e: CLEAR | | Texture: | | |
| r After: | COLORLESS | Clarity After | : CLEAR | | Artifacts: | | |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION 10

1200 Sixth Avenue Seattle, Washington 98101

July 6, 2006

Reply To

Attn. of: OEA-095

MEMORANDUM

SUBJECT: Data Validation for Former Nike Launch Site #81 SI,

Case# 35417, SDG: MJ73W0, Inorganic Analysis

FROM:

Donald Matheny, Chemist

Technical Support Unit, OEA

TO:

Ken Marcy, Site Assessment Manager

Office of Environmental Cleanup (ECL-115)

CC:

Mark Woodke, Ecology & Environment

The data validation of inorganic analyses for the above sample set is complete. Two (2) sediment samples were analyzed for total elements by Bonner Analytical, Hattiesburg, MS. Sample numbers for this delivery group are as follows:

MJ73W0 MJ73W2

DATA QUALIFICATIONS

The following comments refer to the lab's performance in meeting the quality control specifications outlined in the "CLP Statement of Work (CLP-SOW) for Inorganic Analysis, rev. ILM05.3", the "USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review" and the judgment of the reviewer. The comments presented herein are based on the information provided for the review.

1.0 TIMELINESS - Acceptable

The holding time from the date of collection to the date of digestion and analyses were met for all elements (180 days, mercury 28 days). Samples were collected on 6/6/06. ICP-AES analysis was conducted on 6/9/06 and mercury analysis on 6/14/06.

2.0 INSTRUMENT CALIBRATION/VERIFICTION - Acceptable

For ICP-AES analysis, instrument calibration was performed in accordance with method requirements. Recoveries for instrument verification standards (93-110%) met the frequency (10%) and recovery (90-110%) criteria.

For mercury, a blank and four standards were digested for instrument calibration. The correlation coefficient (0.999) met the criterion (> 0.995). Recoveries for verification standards (96-106%) met the frequency (10%) and recovery (80-120%) criteria.

Quantitation verification standards met both the frequency and recovery criteria for all elements.

3.0 ICP-AES INTERFERENCE CHECK SAMPLE (ICS) - Acceptable

An ICS was analyzed at the required frequency for each analytical run. ICS recoveries met the recovery criterion (80-120% or ± 2xCRDL) for all elements.

4.0 LABORATORY CONTROL SAMPLES (LCS) - Acceptable

A solid Laboratory Control Sample was digested and analyzed. Recoveries were within the established control limits for solids.

5.0 BLANKS

Preparation and instrument control blanks were prepared and analyzed in accordance with method requirements. Blank results were either non-detected or below a factor that could impact analytical sample results for all analytes with the exception of arsenic. Arsenic results were qualified (U).

6.0 MATRIX SPIKE ANALYSIS

A matrix spike was analyzed for sample MJ73W2. Percent recoveries (75-100%) met the recovery limits (75-125%) for all elements with the exception of antimony (26%), manganese (72%) and selenium (64%). The post digestion spike recovery for antimony was 90%. Data for these elements were qualified (JL or UJL) and may be biased low.

7.0 DUPLICATE SAMPLE ANALYSIS - Acceptable

A duplicate sample was analyzed for sample MJ73W2. Relative percent difference results (< 29%) were within the control limits (+ 35% or + 2xCRDL) for soil/sediments.

8.0 ICP-AES SERIAL DILUTION

A five-fold serial dilution was analyzed for sample MJ73W2. Percent differences (\leq 10%) met the control limits (\leq 10%) for all applicable elements with the exception of copper (24%) and zinc (20%). Copper and zinc data were qualified (JL) and may be biased low.

9.0 ASSESSMENT SUMMARY

The following is a summary of qualified data:

Arsenic data were qualified (U) due to the detected presence of this analyte in the preparation and/or instrument verification blanks.

Antimony, manganese and selenium data were qualified (J or UJ) due to low matrix spike recoveries. Values for these elements may be biased low.

Copper and zinc were qualified (JL) due to high percent differences for the serial dilution analysis. Reported values for these analytes may be biased low.

DATA QUALIFIERS

- U The material was analyzed for, but was not detected above the associated value. The associated value is either the sample quantitation limit or the sample detection limit.
- J The associated value is an estimated quantity.
- R The data are unusable. The analyte may or may not be present in the sample.
- UJ The analyte was analyzed for, but was not detected. The associated value is an estimate and may be inaccurate or imprecise.

PROJECT SPECIFIC DATA QUALIFIERS:

- L Low bias.
- H High bias.
- K Unknown Bias.
- Q Detected concentration is below the method reporting limit/ Contract Required Quantitation Limit.

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MJ73W0

| Lab Name: | Bonner Ana | lytical T | esting Compa | Contract: | 8W0206 | 7 | | |
|-------------|---------------|------------|----------------|----------------|--------|-------|----------------|--------|
| Lab Code: | BONNER | Case No.: | 35417 | NRAS No.: | | SDG | NO.: | MJ73W0 |
| Matrix (soi | il/water): | SOIL | | Lab Sample ID: | BT397 | 90 | _ | |
| Level (low/ | /med): | LOW | | Date Received: | 06/08 | /2006 | | |
| % Solids: | 86.6 | | | | | | - . | |
| Concentrati | ion Units (ug | /L or mg/k | g dry weight): | MG/KG | _ | | | |
| | CAS No. | A | nalyte | Concentration | C | Q | м |] |
| • | 7429-9 |)-5 A | luminum | 8650 | | | P | |
| | 7440-3 | 5-0 A | ntimony | 6.9 | 15 | れいてし | P | |
| | 7440-3 | 3-2 A | rsenic | 1.1 | ستد ا | u | P |] |
| | 7440-3 | 9-3 B | arium | 39.1 | | | P | |
| | 7440-43 | L-7 B | eryllium | 0.23 | 3 | a | P | |
| | 7440-4: | 3-9 C | admium | 0.58 | ט | | P | 1 |
| | 7440-70 |)-2 C | alcium | 4590 | | | P | 1 |

25.2

6.0

13500

0.72

5260

4

DM

P

P

P

₽

P

B JL

0

| lor After: | YELLOW | Clarity After: | | | Artifacts: | YES | |
|-------------|-----------|----------------------|------|----|------------|--------|----|
| lor Before: | BROWN | Clarity Before: | | | Texture: | MEDIUM | ſ |
| Ľ | 440-00-0 | Zinc | 23.3 | | そゴレ | | l |
| - | 7440-66-6 | | | | 770 | | |
| | 7440-28-0 | Thallium Vanadium | 35.6 | Ū | | P | |
| j - | 7440-23-5 | Sodium | 316 | تد | <u> </u> | P | |
| - | 7440-22-4 | Silver | 1.2 | Ū | | P | |
| - | 7782-49-2 | Selenium | 4.0 | 8 | X-456 | | |
| <u> </u> | 7440-09-7 | Potassium | 581 | | | P | |
| [7 | 7440-02-0 | Nickel | 35.3 | | | P | |
| | 7439-97-6 | Mercury | 0.12 | ט | | CV | } |
| | 7439-96-5 | Manganese | 206 | | として | . P | ٠٠ |

7440-47-3

7440-48-4

7440-50-8

7439-89-6

7439-92-1

7439-95-4

Chromium

Cobalt

Copper

Magnesium

Iron

Lead

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

| MJ7 | 3W2 | |
|-----|-----|--|

| Lab Name: | | Bonner An | analytical Testing Compa | | Contract: | 68W02067 | | | |
|-----------|---------|-----------|--------------------------|-------|----------------|----------|------------|--------|--|
| Lab | Code: | BONNER | Case No.: | 35417 | NRAS No.: | | _ SDG NO.: | MJ73W0 | |
| Mati | ix (soi | l/water): | SOIL | _ | Lab Sample ID: | BT39791 | | | |

% Solids:

Level (low/med):

75.4

LOW

Concentration Units (ug/L or mg/kg dry weight):

MG/KG

Date Received: 06/08/2006

| CAS No. | Analyte | Concentration | С | Q | м |
|-----------|-----------|---------------|----|--------|----|
| 7429-90-5 | Aluminum | 20400 | | | P |
| 7440-36-0 | Antimony | 8.0 | Æ | AT NIL | P |
| 7440-38-2 | Arsenic | 1.6 | | u | P |
| 7440-39-3 | Barium | 81.1 | | | P |
| 7440-41-7 | Beryllium | 0.41 | 15 | а | P |
| 7440-43-9 | Cadmium | 0.13 | I | a | P |
| 7440-70-2 | Calcium | 4820 | | | P |
| 7440-47-3 | Chromium | 35.9 | | | P |
| 7440-48-4 | Cobalt | 10.7 | | | P |
| 7440-50-8 | Copper | 26.8 | | # JL | P |
| 7439-89-6 | Iron | 21900 | | | P |
| 7439-92-1 | Lead | 2.4 | | | P |
| 7439-95-4 | Magnesium | 6370 | | | P |
| 7439-96-5 | Manganese | 303 | | ## JL | P |
| 7439-97-6 | Mercury | 0.061 | 3 | Q | CV |
| 7440-02-0 | Nickel | 60.5 | | | P |
| 7440-09-7 | Potassium | 970 | | | ₽ |
| 7782-49-2 | Selenium | 4.6 | J. | AF UJL | P |
| 7440-22-4 | Silver | 1.3 | σ | | P |
| 7440-23-5 | Sodium | 366 | 3 | Q | P |
| 7440-28-0 | Thallium | 3.3 | ט | | P |
| 7440-62-2 | Vanadium | 49.3 | | | P |
| 7440-66-6 | Zinc | 48.8 | | おゴレ | P |

7-4-06

| Color Before: | BROWN | Clarity Before: | Texture: | MEDIUM |
|---------------|-----------------------------------------|-----------------|----------------|--------|
| Color After: | AETFOM | Clarity After: | Artifacts: | YES |
| Comments: | PLANT MATTER | | | |
| | *************************************** | | | |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION 10 LABORATORY

7411 Beach Dr. East Port Orchard, Washington 98366

MEMORANDUM

SUBJECT: Data Release for NDMA Results from the USEPA Region.

Laboratory

PROJECT NAME: Former Nike Launch Site

PROJECT CODE: TEC-877A

FROM: Gerald Dodo, Chemistry Supervisor

USEPA Region 10 Laboratory

TO: Ken Marcy, Project Officer

Office of Environmental Cleanup

Site Cleanup Unit 2, USEPA Region 10

CC: Mark Woodke, Ecology & Environment

I have authorized release of this data package. Attached you will find the NDMA results for the Former Nike Launch Site project samples collected on 06/06/2006. For further information regarding the attached data, contact Randy Cummings at (360)871-8707. For the schedule of the remaining analyses, contact Gerald Dodo at (360)871-8728.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION 10 LABORATORY

7411 Beach Dr. East Port Orchard, Washington 98366

July 11, 2006

MEMORANDUM

SUBJECT: Data Review for the NDMA Analysis of Former Nike Launch Site.

Project Codes: TEC-877A

Account Code: 06T10P302DD2C10ZZLA00

FROM:

Randy Cummings, Chemist, Laboratory

Office of Environmental Assessment, USEPA Region 10

TO:

Ken Marcy, Project Officer

Office of Environmental Cleanup, Site Cleanup Unit 2, USEPA Region 10

CC:

Mark Woodke, Ecology & Environment

The data review of the N-nitrosodimethylamine (NDMA) analysis results for the Former Nike Launch Site water samples has been completed. The samples were analyzed by the USEPA Region 10 Laboratory located in Manchester, WA using USEPA SW846 Method 8270C (Manchester SOPs Or_P001B version 3, and Or_270C, version 3).

The data for the following sample number is reviewed in this report.

06234050 06234051 06234052 06234053 06234055 06234057 06234061 06234062 06234063 06234064 06234065 06234066

DATA QUALIFICATIONS

The following comments refer to laboratory performance in meeting the quality control specifications outlined in the analytical method, the Manchester Laboratory Quality Assurance Manual, standard operating procedures, and professional judgment.

The conclusions presented herein are based on the information provided for the review.

Holding Time - Acceptable

The samples were extracted within seven days of collection. Extracts have a holding time maximum of 40 days from the time of preparation. The sample was analyzed within this criterion.

GC/MS Tuning and Performance - Acceptable

The tuning summary agreed with the raw data. All decafluorotriphenylphosphine ion abundance ratios met criteria. Sample analyses were preceded by a tune less than 12 hours prior to analysis.

Initial Calibration - Acceptable

An initial calibration was performed on 06Jun06 for the target and surrogate compounds and met the criteria outlined in the SOP (Or_270C, version 3). Average relative response factors (RRFs) were ≥ 0.05 . Percent relative standard deviations (%RSDs) of the RRFs were $\leq 15\%$. Coefficients of Determination were ≥ 0.99 .

Second source check analyses resulted with percent differences from the expected values of $\leq 30\%$ for all compounds.

Continuing Calibration - Acceptable

The continuing calibration check met the criteria for frequency of analysis and relative retention time (RRT) windows for all target and surrogate compounds. The RRFs were ≥ 0.05 and the percent accuracies were 80-120% of the true values.

Blanks - Acceptable

Two method blanks were prepared and analyzed to evaluate the potential for laboratory contamination and the effect on sample results. Target compounds detected in the samples were reported without qualification if the sample result area integration exceeded ten times that of the blank for common contaminates (e.g., phthalates) or five times that of the blank for the other target compounds. Detected sample results were qualified 'U' if the area integration was below these criteria. The sample concentration or the sample quantitation limit, whichever is greater, was reported as the qualified result.

Surrogates - Acceptable

Surrogate recoveries are used to help in the evaluation of laboratory performance on individual samples. For this project two surrogates were used: d_4 -1,2-dichlorobenzene and $^2C_{13}/d_6$ -NDMA. The SOP calls for spike concentration of 20µg/sample, whereas the samples in this set were spiked at 4µg/sample. However, the recoveries met the SOP criteria at lower spike level for d4-1,2-dichlorobenzene (20 – 130%) and were within the NDMA acceptance limits for $^2C_{13}/d_6$ -NDMA (50 – 70%). Therefore no qualification resulted.

Matrix Spike/Matrix Spike Duplicate (MS/MSD) - Acceptable

Matrix spiked samples are used to evaluate matrix affects on analyte recovery. One pair of matrix spiked samples was prepared for this set. This pair met the criteria for accuracy (50 – 70%) using the two standard deviation range provided in the SOP for fortified blanks, and precision (35%) from the criterion provided in the QaPP).

Laboratory Control Sample - Acceptable

Data for laboratory control samples (LCS) are generated to provide ongoing information on the accuracy of the analytical method and the laboratory performance. Four spiked reagent water analyses were performed as LCSs (two pairs: OBF6163F1 and OBF6163F2, spiked at 4ppB; and OBF6163F3 and OBF6163F4, spiked at 0.8ppB). The LCS recoveries were compared against criteria based on historical results from pooled water extraction recoveries (50 – 70%, spiked at 16ppB).

Sample OBF6163F4 had recoveries below the established range. The deviation was not judged to be critical to evaluating the method performance for this project since one of the surrogates was an isotope labeled form of NDMA. The labeled form of NDMA should accurately reflect the expected recovery of the un-labeled compound. Recovery of this surrogate was within the established range for all of the samples, blanks and spiked blanks except OBF6163F4. Recovery for this surrogate in sample OBF6163F4 was low proportionally to the un-labeled compound, thus suggesting that the results were isolated to the sample and not indicative of an overall problem for the project. Therefore no qualification was applied.

Internal Standard Performance - Acceptable

The performance criteria for internal standards ensure that GC/MS sensitivity and response are stable during every analytical run. The retention time variations of all internal standards were within 30 seconds of the continuing calibration standard. The percent areas of all the internal standards were within the specified 50% to 200% of the continuing calibration standard.

Target Compound Identification - Acceptable

The RRTs for all detected target compounds were within acceptable limits of the initial or continuing calibration standards. No reference spectra data base was created. Identifications were based on selected ion ratios. Criteria were met, or judged acceptable, for ion abundance matching. No target compounds were detected.

Compound Quantitation - Acceptable

The initial calibration functions were used for calculations. Reported quantitation limits were based on the initial calibration standards and sample size used for the analysis. All manual integrations were reviewed and judged to be appropriate.

Overall Assessment

All requirements for data qualifiers from the preceding sections were accumulated. Each sample data summary sheet and each compound was checked for positive or negative results. From this, the overall need for data qualifiers for each analysis was determined. In cases where more than one of the preceding sections required data qualifiers, the most restrictive qualifier has been added to the data.

In general, all unqualified data can be used without restriction. The usefulness of qualified data should be treated according to the severity of the qualifier. Should questions arise regarding the qualification of data and its relation to the usefulness, the reader is encouraged to contact Randy Cummings at the Region 10 Laboratory, phone number (360) 871-8707.

| Qualifier/ Remark Code | Definition (Codes Assigned to Values) | | | | |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|
| U | The analyte was not detected at or above the reported value. | | | | |
| J | The identification of the analyte is acceptable; the reported value is an estimate. | | | | |
| UJ | The analyte was not detected at or above the reported value. The reported value is an estimate. | | | | |
| R . | The presence or absence of the analyte can not be determined from the data due to severe quality control problems. The data are rejected and considered unusable. No value is reported with this qualification. | | | | |
| NJ | There is presumptive evidence that the analyte is present; the analyte is reported as a tentative identification. The reported value is an estimate. | | | | |
| NA | Not Applicable, the parameter was not analyzed for, or there is no analytical result for this parameter. No value is reported with this qualification. | | | | |

Manchester Environmental Laboratory Report by Parameter for Project TEC-877A

Page 1 of 20

Project Code:

TEC-877A

Collected:

6/6/06

Project Name:

FORMER NIKE LAUNCH SITE #81

Matrix:

Liquid

Project Officer: Account Code:

KEN MARCY 06T10P302DD2C10ZZLA00 Sample Number: Type:

06234050 Reg sample

Station Description:

| | | | Result | Units | Qlfr |
|---------------|---------------|--------------------------------------|--------|--------|---------------------|
| GCMS | | | | | · |
| Parameter : | Semi-volatile | S | | Conta | niner ID: 1N |
| Method : | 8270 | BNA | | Analys | sis Date: 6/13/2006 |
| Prep Method : | 3510 | Separatory funnel liq-liq extraction | | Pr | ep Date: 6/12/2006 |
| Analytes(s): | 62759 | N-Nitrosodimethylamine | 0.1 | ug/L | U |
| Surrogate(s): | 95501 | Benzene, 1,2-dichloro- | 56 | %Rec | |
| _ ,, | *17829059 | D6-13C2 N-Nitrosodimethylamine | 57 | %Rec | |

Manchester Environmental Laboratory Report by Parameter for Project TEC-877A

2 of Page

20

Project Code:

TEC-877A

Project Name:

FORMER NIKE LAUNCH SITE #81

Project Officer:

KEN MARCY

06T10P302DD2C10ZZLA00

Collected:

6/6/06

Matrix:

Liquid

Sample Number: Type:

06234051 Reg sample

Account Code: Station Description:

Result

Units

Qlfr

| GCMS | | | • | | |
|---------------|---------------|--------------------------------------|-----|-------|---------------------|
| Parameter : | Semi-volatile | s | | Conta | ainer ID: 1N |
| Method : | 8270 | BNA | | Analy | sis Date: 6/13/2006 |
| Prep Method : | 3510 | Separatory funnel liq-liq extraction | | Pr | ep Date: 6/12/2006 |
| Analytes(s): | 62759 | N-Nitrosodimethylamine | 0.1 | ug/L | U |
| Surrogate(s): | 95501 | Benzene, 1,2-dichloro- | 63 | %Rec | |
| • | *17829059 | D6-13C2 N-Nitrosodimethylamine | 60 | %Rec | |

Manchester Environmental Laboratory Report by Parameter for Project TEC-877A

Page 3 of 20

Project Code:

TEC-877A

Project Name:

FORMER NIKE LAUNCH SITE #81

Project Officer:

KEN MARCY 06T10P302DD2C10ZZLA00

Account Code: Station Description:

Collected: Matrix:

Sample Number:

Liquid 06234051

Type:

Matrix Spike

| | | | Result | Units | Qlfr |
|---------------|---------------|--------------------------------------|--------|----------|--------------------|
| GCMS | | | | | • |
| Parameter : | Semi-volatile | es | | Conta | iner ID: 3N |
| Method : | 8270 | BNA | | · Analy: | sis Date: 6/14/200 |
| Prep Method : | 3510 | Separatory funnel liq-liq extraction | | Рг | ep Date: 6/12/200 |
| Surrogate(s): | 95501 | Benzene, 1,2-dichloro- | 59 | %Rec | |
| | *17829059 | D6-13C2 N-Nitrosodimethylamine | 58 | %Rec | |
| | 62759 | N-Nitrosodimethylamine | 57 | %Rec | |

Manchester Environmental Laboratory Report by Parameter for Project TEC-877A

20 4 of Page

Project Code:

TEC-877A

Collected:

Project Name:

FORMER NIKE LAUNCH SITE #81

Matrix:

Liquid

Project Officer:

KEN MARCY

Sample Number:

06234051 -

Account Code:

06T10P302DD2C10ZZLA00

Type:

Matrix Spike Dupl

Station Description:

| | | | Result | Units | Qlfr |
|---------------|---------------|--------------------------------------|--------|-------|---------------------|
| GCMS | | | | | |
| Parameter : | Semi-volatile | es | | Conta | iner ID: 5N |
| Method | 8270 | BNA | | Analy | sis Date: 6/14/2006 |
| Prep Method | 3510 | Separatory funnel liq-liq extraction | | Pr | ep Date: 6/12/2006 |
| Surrogate(s): | 95501 | Benzene, 1,2-dichloro- | 57 | %Rec | |
| | *17829059 | D6-13C2 N-Nitrosodimethylamine | 58 | %Rec | |
| • | 62759 | N-Nitrosodimethylamine | 56 | %Rec | |

Manchester Environmental Laboratory Report by Parameter for Project TEC-877A

Page 5 of 20

Project Code:

TEC-877A

Project Name:

FORMER NIKE LAUNCH SITE #81

Project Officer:

KEN MARCY

Account Code:

06T10P302DD2C10ZZLA00

Collected:

6/6/06

Matrix: Sample Number: Liquid 06234052

Type:

Reg sample

Station Description:

| | | | Result | Units | Qlfr |
|---------------|--------------|--------------------------------------|--------|--------|---------------------|
| GCMS | | | | | |
| Parameter : | Semi-volatil | es | | Conta | iner ID: 2N |
| Method | : 8270 | BNA | | Analys | sis Date: 6/13/2006 |
| Prep Method | : 3510 | Separatory funnel liq-liq extraction | | Pr | ep Date: 6/12/2006 |
| Analytes(s) | : 62759 | N-Nitrosodimethylamine | 0.1 | ug/L | U |
| Surrogate(s): | : 95501 | Benzene, 1,2-dichloro- | 58 | %Rec | |
| , | *17829059 | D6-13C2 N-Nitrosodimethylamine | 55 | %Rec | |

Manchester Environmental Laboratory Report by Parameter for Project TEC-877A

Page 6 of 20

Project Code:

TEC-877A

FORMER NIKE LAUNCH SITE #81

Collected:

Type:

6/6/06

Project Name: Project Officer:

Matrix:

Liquid 06234053

Account Code:

KEN MARCY 06T10P302DD2C10ZZLA00 Sample Number:

Reg sample

Station Description:

PD01SW

| | | | Result | Units | Olfr |
|-----------------------------------------|---------------|--------------------------------------|--------|--------|--------------------|
| GCMS | | | | | |
| Parameter : | Semi-volatile | es | | Conta | iner ID: 1N |
| Method | 8270 | BNA | | Analys | sis Date: 6/13/200 |
| Prep Method | 3510 | Separatory funnel liq-liq extraction | | Pr | ep Date: 6/12/200 |
| Analytes(s): | 62759 | N-Nitrosodimethylamine | 0.1 | ug/L | U |
| Surrogate(s): | 95501 | Benzene, 1,2-dichloro- | 62 | %Rec | |
| • • • • • • • • • • • • • • • • • • • • | *17829059 | D6-13C2 N-Nitrosodimethylamine | 59 | %Rec | |

Manchester Environmental Laboratory Report by Parameter for Project TEC-877A

20 Page 7 of

Project Code:

TEC-877A

Project Name: Project Officer: FORMER NIKE LAUNCH SITE #81

KEN MARCY

Account Code:

GCMS Parameter

Method

06T10P302DD2C10ZZLA00

Station Description:

PD02SW

Collected:

6/6/06

Matrix:

Liquid 06234055

Sample Number: Type:

Reg sample

Olfr Result Units Container ID: 1N Analysis Date: 6/13/2006 Prep Date: 6/12/2006 ug/L

Prep Method: 3510 Analytes(s): 62759

: 8270

Semi-volatiles

BNA Separatory funnel liq-liq extraction

N-Nitrosodimethylamine

0.1 58 U

Surrogate(s): 95501 *17829059

Benzene, 1,2-dichloro-D6-13C2 N-Nitrosodimethylamine

56

%Rec %Rec

Manchester Environmental Laboratory Report by Parameter for Project TEC-877A

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Project Code:

TEC-877A

Collected:

6/6/06

Project Name:

FORMER NIKE LAUNCH SITE #81

Matrix: Lic

Liquid

Project Officer:

KEN MARCY

Sample Number:

06234057

Account Code:

06T10P302DD2C10ZZLA00

Type:

Reg sample

Station Description:

CR01SW

| | | | Result | Units | Qlfr |
|---------------|---------------|--------------------------------------|--------|--------|---------------------|
| GCMS | | | | | |
| Parameter : | Semi-volatile | s | | Conta | iner ID: 3N |
| Method : | 8270 | BNA | , | Analys | sis Date: 6/13/2006 |
| Prep Method : | 3510 | Separatory funnel liq-liq extraction | | Pr | ep Date: 6/12/2006 |
| Analytes(s): | 62759 | N-Nitrosodimethylamine | 0.1 | ug/L | U |
| Surrogate(s): | 95501 | Benzene, 1,2-dichloro- | 57 | %Rec | |
| | *17829059 | D6-13C2 N-Nitrosodimethylamine | 57 | %Rec | |

Manchester Environmental Laboratory Report by Parameter for Project TEC-877A

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Project Code:

TEC-877A

Collected:

6/6/06

Project Name: Project Officer:

FORMER NIKE LAUNCH SITE #81

Matrix: Sample Number: Liquid 06234061

Account Code:

KEN MARCY 06T10P302DD2C10ZZLA00

Type:

Reg sample

| | | | Result | Units | Qlfr_ |
|---------------|---------------|--------------------------------------|--------|--------|---------------------|
| GCMS | | | | | |
| Parameter : | Semi-volatile | es | | Conta | iner ID: 1N |
| Method : | 8270 | BNA | | Analys | sis Date: 6/13/2006 |
| Prep Method : | 3510 | Separatory funnel liq-liq extraction | | Pr | ep Date: 6/12/2006 |
| Analytes(s): | 62759 | N-Nitrosodimethylamine | 0.1 | ug/L | U |
| Surrogate(s): | 95501 | Benzene, 1,2-dichloro- | 59 | %Rec | |
| • • • • | *17829059 | D6-13C2 N-Nitrosodimethylamine | 60 | %Rec | |

Manchester Environmental Laboratory Report by Parameter for Project TEC-877A

Page 10 of 20

Project Code:

TEC-877A

Project Name: Project Officer: FORMER NIKE LAUNCH SITE #81

KEN MARCY

Account Code:

06T10P302DD2C10ZZLA00

Station Description:

Collected:

6/6/06

Matrix:

Liquid

Sample Number: Type:

06234062 Reg sample

| | | | Result | Units | Qlfr_ |
|---------------|------------------------|--------------------------------------|---------------------|-------|---------------------|
| GCMS | | | | • | • |
| Parameter : | Semi-volatile | es | | Cont | ainer ID: 1N |
| Method : | : 8270 BNA Analysis Da | | sis Date: 6/13/2006 | | |
| Prep Method : | 3510 | Separatory funnel liq-liq extraction | | Pi | rep Date: 6/12/2006 |
| Analytes(s): | 62759 | N-Nitrosodimethylamine | 0.1 | ug/L | U |
| Surrogate(s): | 95501 | Benzene, 1,2-dichloro- | 52 | %Rec | |
| | *17829059 | D6-13C2 N-Nitrosodimethylamine | 62 | %Rec | |

Manchester Environmental Laboratory Report by Parameter for Project TEC-877A

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Project Code:

TEC-877A

Project Name: FORMER NIKE LAUNCH SITE #81

Project Officer:

KEN MARCY

Account Code:

06T10P302DD2C10ZZLA00

Collected:

6/6/06

Matrix:

Liquid

Sample Number: Type: 06234063 Reg sample

| | | | Result | Units | <u>Qlfr</u> | |
|---------------|---------------|--------------------------------------|--------|--------------------------|--------------------|--|
| GCMS | | • | | | | |
| Parameter : | Semi-volatile | es . | | Conta | iner ID: 1N | |
| Method | : 8270 | BNA | | Analysis Date: 6/13/2006 | | |
| Prep Method | : 3510 | Separatory funnel liq-liq extraction | | Pr | ep Date: 6/12/2006 | |
| Analytes(s) | : 62759 | N-Nitrosodimethylamine | 0.1 | ug/L | U | |
| Surrogate(s): | 95501 | Benzene, 1,2-dichloro- | 50 | %Rec | | |
| | *17829059 | D6-13C2 N-Nitrosodimethylamine | 53 | %Rec | | |

Manchester Environmental Laboratory Report by Parameter for Project TEC-877A

Page 12 of 20

Project Code:

TEC-877A

Project Name:

FORMER NIKE LAUNCH SITE #81

KEN MARCY

Project Officer: **Account Code:**

06T10P302DD2C10ZZLA00

Collected:

6/6/06

Matrix:

Liquid

Sample Number: Type:

06234064 Reg sample

| | · · · · · · · · · · · · · · · · · · · | | Result | Units | Qlfr |
|---------------|---------------------------------------|--------------------------------------|--------|--------------------------|--------------------|
| GCMS | | | | | |
| Parameter : | Semi-volatile | es | | Conta | iner ID: 2N |
| Method : | 8270 | BNA | | Analysis Date: 6/13/2006 | |
| Prep Method : | 3510 | Separatory funnel liq-liq extraction | | Pr | ep Date: 6/12/2006 |
| Analytes(s): | 62759 | N-Nitrosodimethylamine | 0.1 | ug/L | U· |
| Surrogate(s): | 95501 | Benzene, 1,2-dichloro- | 50 | %Rec | |
| | *17829059 | D6-13C2 N-Nitrosodimethylamine | 59 | %Rec | |

Manchester Environmental Laboratory Report by Parameter for Project TEC-877A

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Project Code:

TEC-877A

Collected:

6/6/06

Project Name:

FORMER NIKE LAUNCH SITE #81

Matrix:

Liquid 06234065

Project Officer: **Account Code:**

KEN MARCY 06T10P302DD2C10ZZLA00 Sample Number: Type:

Reg sample

| | | | Result | Units | Qlfr |
|-----------------------------------------|--------------|--------------------------------------|--------|-------------------------|-------------------|
| GCMS | · | | | | |
| Parameter : | Semi-volatil | es | | Conta | iner ID: 2N |
| Method | : 8270 | BNA | | Analysis Date: 6/13/200 | |
| Prep Method | : 3510 | Separatory funnel liq-liq extraction | | Pr | ep Date: 6/12/200 |
| Analytes(s) | : 62759 | N-Nitrosodimethylamine | 0.1 | ug/L | U |
| Surrogate(s): | | Benzene, 1,2-dichloro- | 56 | %Rec | |
| • • • • • • • • • • • • • • • • • • • • | *17829059 | D6-13C2 N-Nitrosodimethylamine | 57 | %Rec | |

Manchester Environmental Laboratory Report by Parameter for Project TEC-877A

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Project Code:

TEC-877A

Project Name:

FORMER NIKE LAUNCH SITE #81

Project Officer:

KEN MARCY

Account Code:

06T10P302DD2C10ZZLA00

Collected:

6/6/06 Liquid

Matrix: Sample Number:

Type:

06234066 Reg sample

| | | | Result | Units | Qlfr |
|---------------|----------------|--------------------------------------|--------|--------|---------------------|
| GCMS | | • | | | |
| Parameter : | Semi-volatiles | | | Conta | iner ID: 2N |
| Method : | 8270 | BNA | | Analys | sis Date: 6/13/2006 |
| Prep Method : | 3510 | Separatory funnel liq-liq extraction | | Pr | ep Date: 6/12/2006 |
| Analytes(s): | 62759 | N-Nitrosodimethylamine | 0.1 | ug/L | U |
| Surrogate(s): | 95501 | Benzene, 1,2-dichloro- | 55 | %Rec | |
| | *17829059 | D6-13C2 N-Nitrosodimethylamine | 59 | %Rec | |

Manchester Environmental Laboratory Report by Parameter for Project TEC-877A

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Project Code:

TEC-877A

Collected:

Project Name:

FORMER NIKE LAUNCH SITE #81

Matrix:

Liquid

Project Officer:

KEN MARCY

Sample Number:

OBF6163F1

Account Code:

06T10P302DD2C10ZZLA00

Type:

LCS

| Station | Description: |
|---------|--------------|
|---------|--------------|

| | • | | Result | Units | Qlfr |
|----------------------------|-----------|--------------------------------------|-----------------|---------------------|--------------------|
| GCMS | | | | | |
| Parameter : Semi-volatiles | | | Container ID: 0 | | |
| Method : | 8270 · | BNA Analysis Date : | | sis Date: 6/13/2006 | |
| Prep Method : | 3510 | Separatory funnel liq-liq extraction | | Pr | ep Date: 6/12/2006 |
| Surrogate(s): | 95501 | Benzene, 1,2-dichloro- | 49 | %Rec | • |
| | *17829059 | D6-13C2 N-Nitrosodimethylamine | 56 | %Rec | |
| | 62759 | N-Nitrosodimethylamine | 53 | %Rec | |

Manchester Environmental Laboratory Report by Parameter for Project TEC-877A

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Project Code:

TEC-877A

Project Name: Project Officer: FORMER NIKE LAUNCH SITE #81

KEN MARCY

Account Code:

Station Description:

06T10P302DD2C10ZZLA00

Collected:

Matrix:

Liquid

Sample Number:

OBF6163F2

LCSD

| | | | Result | Units | Olfr | |
|---------------|---------------|--------------------------------------|--------|--------------------------|--------------------|--|
| GCMS | , | | | | | |
| Parameter : | Semi-volatile | es | | Conta | niner ID: 0 | |
| Method : | 8270 | BNA | | Analysis Date: 6/13/2006 | | |
| Prep Method : | 3510 | Separatory funnel liq-liq extraction | | Pr | ep Date: 6/12/2006 | |
| Surrogate(s): | 95501 | Benzene, 1,2-dichloro- | 48 | %Rec | | |
| | *17829059 | D6-13C2 N-Nitrosodimethylamine | 57 | %Rec | | |
| | 62759 | N-Nitrosodimethylamine | 55 | %Rec | | |

Manchester Environmental Laboratory Report by Parameter for Project TEC-877A

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Project Code:

TEC-877A

Project Name: Project Officer:

FORMER NIKE LAUNCH SITE #81

KEN MARCY

Account Code: Station Description:

06T10P302DD2C10ZZLA00

Collected:

Matrix: Sample Number: Liquid OBF6163F3

Type:

LCS

| | | | | Result | Units | Qlfr |
|--------------|----|----------------|--------------------------------------|--------|----------------------|--------------------|
| GCMS | | | | | | |
| Parameter | : | Semi-volatiles | | | Contai | ner ID: 0 |
| Method | : | 8270 | BNA | | Analys | is Date: 6/13/2006 |
| Prep Method | : | 3510 | Separatory funnel liq-liq extraction | | Prep Date: 6/12/2006 | |
| Surrogate(s) |): | 95501 | Benzene, 1,2-dichloro- | 44 | %Rec | |

 95501
 Benzene, 1,2-dichloro 44
 %Rec

 *17829059
 D6-13C2 N-Nitrosodimethylamine
 51
 %Rec

 62759
 N-Nitrosodimethylamine
 55
 %Rec

Manchester Environmental Laboratory Report by Parameter for Project TEC-877A

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Project Code: Project Name: **TEC-877A**

1EC-0//2

FORMER NIKE LAUNCH SITE #81

Matrix:

Liquid

Project Officer:

KEN MARCY

Sample Number:

Collected:

OBF6163F4

Account Code:

06T10P302DD2C10ZZLA00

Type:

LCSD

| _ | | | <u>,</u> | Result | Units | Qlfr |
|---|---------------|---------------|--------------------------------------|--------|--------|---------------------|
| G | CMS | | | | | |
| Ī | Parameter : | Semi-volatile | es | | Conta | iner ID: 0 |
| | Method : | 8270 | BNA | | Analy: | sis Date: 6/13/2006 |
| • | Prep Method : | 3510 | Separatory funnel liq-liq extraction | | Pr | ep Date: 6/12/2006 |
| | Surrogate(s): | 95501 | Benzene, 1,2-dichloro- | 39 | %Rec | |
| | | *17829059 | D6-13C2 N-Nitrosodimethylamine | 42 | %Rec | |
| | | 62759 | N-Nitrosodimethylamine | 46 | %Rec | |

Manchester Environmental Laboratory Report by Parameter for Project TEC-877A

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Project Code: Project Name: **TEC-877A**

FORMER NIKE LAUNCH SITE #81 KEN MARCY

Collected: Matrix:

Sample Number:

Liquid OBW6163B1

Project Officer: Account Code:

06T10P302DD2C10ZZLA00

Type:

Blank

| | | | Result | Units | Ölfr | |
|---------------|---------------|--------------------------------------|--------|-------------------------|--------------------|--|
| GCMS | | | | | | |
| Parameter : | Semi-volatile | es · | | Conta | iner ID: 0 | |
| Method : | 8270 | BNA | | Analysis Date: 6/13/200 | | |
| Prep Method : | 3510 | Separatory funnel liq-liq extraction | | Pr | ep Date: 6/12/2006 | |
| Analytes(s): | 62759 | N-Nitrosodimethylamine | 0.1 | ug/L | U | |
| Surrogate(s): | 95501 | Benzene, 1,2-dichloro- | 52 | %Rec | | |
| - ,, | *17829059 | D6-13C2 N-Nitrosodimethylamine | 58 | %Rec | | |

Manchester Environmental Laboratory Report by Parameter for Project TEC-877A

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Project Code: Project Name:

TEC-877A

ECDIAEI

FORMER NIKE LAUNCH SITE #81

Collected:

Matrix: Sample Number: Liquid

Type:

OBW6163B2 Blank

Project Officer: Account Code:

KEN MARCY 06T10P302DD2C10ZZLA00

| | | | Result | Units | Qlfr |
|---------------|---------------|--------------------------------------|--------|--------|---------------------|
| GCMS | | | | | |
| Parameter : | Semi-volatile | es | | Conta | iner ID: 0 |
| Method : | 8270 | BNA | | Analys | sis Date: 6/13/2006 |
| Prep Method : | 3510 | Separatory funnel liq-liq extraction | | Pro | ep Date: 6/12/2006 |
| Analytes(s): | 62759 | N-Nitrosodimethylamine | 0.1 | ug/L | U |
| Surrogate(s): | 95501 | Benzene, 1,2-dichloro- | 50 | %Rec | |
| | *17829059 | D6-13C2 N-Nitrosodimethylamine | 52 | %Rec | |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION 10

1200 Sixth Avenue Seattle, WA 98101

August 28, 2006

MEMORANDUM

SUBJECT: Data validation report for the volatile organic compounds (VOCs), semi-volatile organic

compounds (SVOCs), pesticides (PEST), and PCB Aroclors (PCB) analysis of samples from the

Former Nike Launch Site #81 Case: 35417 SDG: J73T9

FROM: Brandon Perkins, QA Chemist

Office of Environmental Assessment

TO: Ken Marcy, Site Assessment Manager

Office of Environmental Cleanup

CC: Mark Woodke

Ecology and Environment

The quality assurance (QA) review of 3 water and 2 soil samples collected from the above referenced site has been completed. The samples were analyzed for VOCs, SVOCs, Pesticides, and PCB Aroclors in accordance with the USEPA Contract Laboratory Program (CLP) Statement of Work (SOW) for Multi-Concentration Organic Analysis (SOM01.1). The analysis was performed by Datachem Laboratories of Salt Lake City, UT. The following samples were reviewed in this validation report:

SDG: J73T9

J73T9 J73W0 J73W2 J73W3 J73W7

DATA QUALIFICATIONS

The following comments refer to the laboratory performance in meeting the Quality Control (QC) Specifications outlined in the USEPA CLP SOW for Multi Concentration Organic Analysis (SOM01.1) and the USEPA CLP National Functional Guidelines for Organic Data Review (1/2005).

The conclusions presented herein are based on the information provided for the review.

Holding Time -

All of the samples met the technical holding time criteria for VOCs, SVOCs, pesticide, and PCB Aroclors analysis. The samples were collected on 6/6/06, VOCs analysis occurred on 6/13/06 - 6/14/06, SVOCs, Pest, and PCB extraction occurred on 6/13/06 & 6/15/06; SVOCs analysis occurred on 6/13/06 - 6/21/06, PEST analysis occurred on 6/26/06, and PCB analysis occurred on 6/21/06. SVOC samples were re-extracted and reanalyzed on 6/26/06, outside of holding time due to spiking of incorrect surrogates. None of the data was qualified on this basis.



Instrument Performance Checks – Acceptable

The GC/MS systems used for VOCs and SVOCs analysis met the performance checks and ion abundance criteria. All of the samples were analyzed within an acceptable 12-hour QC period and the instruments used remained stable throughout the course of analyses. None of the data were qualified on this basis.

The GC system used in the Pest analysis met the performance checks, resolution checks, and percent endrin and 4,4'-DDT breakdown criteria. All of the samples were analyzed within an acceptable 12-hour QC period and the instrument used remained stable throughout the course of analysis. None of the data was qualified on this basis.

Initial Calibrations (ICAL) -

The ICAL curves for VOCs and SVOCs analysis met the technical acceptance criteria set forth by the SOW for the percent relative standard deviations (%RSDs), chromatographic resolutions, retention times, and minimum response factors (RRFs) for all target compounds and surrogates with the following exceptions:

- <u>VOC ICAL 5/23/06 instr. 5972-P</u> The mean RRF of 1,4-Dioxane (0.0013) exceeded the control limit of 0.010. This compound was not detected and therefore was qualified unusable "R".
- <u>VOC ICAL 5/11/06 instr. 5972-S</u> The mean RRF of 1,4-Dioxane (0.0025) exceeded the control limit of 0.010. This compound was not detected and therefore was qualified unusable "R".

The ICAL curves for Pest analysis met the frequency of analysis and other technical acceptance criteria set forth by the SOW for the percent relative standard deviations (%RSDs), retention times, and calibration factors (CFs) for all target compounds and surrogates.

The initial calibration curves for PCBs analysis met the frequency of analysis and other technical acceptance criteria set forth by the SOW for the percent relative standard deviations (%RSDs), retention times, and calibration factors (CFs) for all target compounds and surrogates.

Continuing Calibration Verification (CCV)

All of the GC/MS CCVs for VOCs and SVOCs analysis met the criteria for frequency of analysis, and the technical acceptance criteria (minimum response factors (RFs) and percent differences (%Ds)) with the following exceptions:

| Date/Time of Analysis | Compound | %D (25% limit) | Qualifier Detect/Non- detect | Associated Samples |
|--------------------------------|-----------------------------------------------------------|----------------------|------------------------------------|------------------------------|
| 6/26/06 13:20 instr. 5972-R | Hexachlorocyclopentadiene 4-Nitrophenol Pentachlorophenol | 26.9 27.2 37.4 | J/None J/None J/None | J73T9RX, J73W1RX, J73W3RX |

All of the GC CCVs for Pest analysis met the criteria for frequency of analysis, retention times, and percent differences (%Ds) of the technical acceptance criteria. None of the data was qualified on this basis.

All of the GC CCVs for PCBs analysis met the criteria for frequency of analysis, retention times, and percent differences (%Ds) of the technical acceptance criteria. None of the data was qualified on this basis.

Quantitation Limits - Acceptable

The samples were analyzed at the contract required quantitation limits (CRQL). The CRQLs were based on the lowest standard concentration analyzed in the initial calibrations. Target compounds that were detected at concentrations less than the QLs were qualified as estimated, "J". Detected compounds at concentrations over the calibration range were analyzed by the laboratory at a dilution. Trace levels of common laboratory contaminants detected in the samples at concentrations less than CRQLs were qualified by the reviewer as non-detect, "U" and reported at the CRQL. All of the reported results were adjusted for sample amounts analyzed. When applicable, all of the "E" and "D" qualifiers applied by the laboratory were crossed-out by the reviewer.

It is recommended that data users should utilize the results/analytical run selected by the reviewer where more than one analysis was performed on a single extract (i.e., dilution, re-analysis).

Blanks - Acceptable

All method and/or instrument blanks analyzed for VOCs, SVOCs, Pest, and PCBs were acceptable with the following exceptions

- Trace levels of methylene chloride was detected in the one of the method blanks. This compound is a common laboratory contaminant. Therefore detected methylene chloride at concentrations less than 10x the blank value, within samples associated with this blanks, were qualified as non-detects, "U".
- Trace levels of toluene was detected in the full scan method blank. Detected toluene concentrations less than 5x the blank values, within samples associated with this blank was qualified as non-detects, "U".
- Trace levels of bis(2-ethylhexyl)phthalate, butylbenzylphthalate, and di-n-butylphthalate were detected in one of the method blanks. These compounds are common laboratory contaminants. Therefore detected bis(2-ethylhexyl)phthalate, butylbenzylphthalate, and di-n-butylphthalate at concentrations less than 10x the blank value, within samples associated with this blank, were qualified as non-detects, "U".
- Trace levels of acetphenone was detected in one of the method blanks. Detected acetphenone at concentrations less than 5x the blank values, within samples associated with this blank was qualified as non-detects, "U".
- Trace levels of methoxychlor was detected in one of the method blanks. Detected methoxychlor at concentrations less than 5x the blank values, within samples associated with this blank was qualified as non-detects, "U".

Analytical Sequence - Acceptable

All of the standards, blanks, samples, and QC samples were analyzed in accordance with the SOW specified analytical sequence. None of the data was qualified on this basis.

Surrogates

Fourteen VOCs, Eighteen SVOCs and two Pest/PCB surrogates were spiked in all the samples and QC samples to evaluate laboratory performance. The surrogates and their corresponding recovery acceptance limits are:

| DMCs | Recovery Limits (%) | DMCs | Recovery Limits (%) |
|-----------------------------------|------------------------|-------------------------------------|---------------------|
| Vinyl Chloride-d3 (VCL) | 65-131 | 1,2-Dichloropropane-d6 (DPA) | 79-124 |
| Chloroethane-d5 (CLA) | 71-131 | Toluene-d8 (TOL) | 77-121 |
| 1,1-Dichloroethene-d2 (DCE) | 55-104 | Trans-1,3-Dichloropropene-d4 (TDP) | 73-121 |
| 2-Butanone-d5 (BUT) | 49-155 | 2-Hexanone-d5 (HEX) | 28-135 |
| Chloroform-d (CLF) | 78-121 | 1,4-Dioxane-d8 (DXE) | 50-150 |
| 1,2-Dichloroethane-d4 (DCA) | 78-129 | 1,1,2,2-Tetrachloroethane-d2 (TCA) | 73-125 |
| Benzene-d6 (BEN) | 77-124 | 1,2-Dichlorobenzene (DCZ) | 80-131 |
| Phenol-d5 (PHL) | 17-103 | Dimethylphthalate-d6 (DMP) | 43-111 |
| Bis-(2-chloroethyl)ether-d8 (BCE) | 12-98 | Acenapthylene-d8 (ACY) | 20-97 |
| 2-Chlorphenol-d4 (2CP) | 13-101 | 4-Nitrophenol-d4 (4NP) | 16-166 |
| 4-Methylphenol-d8 (4MP) | 8-100 | Fluorene-d10 (FLR) | 40-108 |
| Nitrobenzene-d5 (NBZ) | 16-103 | 4,6-Dinitro-2-methylphenol-d2 (NMP) | 1-121 |
| 2-Nitrophenol-d4 (2NP) | 16-104 | Anthracene-d10 (ANC) | 22-98 |
| 2,4-Dichlorophenol-d3 (DCP) | 23-104 | Pyrene-d10 (PYR) | 51-120 |
| 4-Chloroaniline-d4 (4CA) | 1-145 | Benzo(a)pyrene-d12 (BAP) | 43-111 |
| Fluoranthene-d10 (SIM) (FLN) | 50-150 | 2-Methylnaphthalene-d10 (SIM) (2MN) | 50-150 |
| Tetrachloro-m-xylene (TCX) | 30-150 | Decachlorobiphenyl (DCB) | 30-150 |

All of the surrogate recoveries met the applicable recovery criteria with the following exceptions:

| Sample | DMC | Recovery (%) | Qualification Detects/Non- detects | Associated compounds |
|--------|-----|--------------|------------------------------------------|----------------------|
| J73T9 | DXE | 180 | J/None | 1,4-Dioxane |
| J73W3 | DXE | 112 | J/None | 1,4-Dioxane |
| J73W7 | DXE | 106 | J/None | 1,4-Dioxane |

| J73T9 | NBZ | 125 | J/None | Acteophenone, N-nitroso-di-n- propylamine, Hexachloroethane, Nitrobenzene, 2,6-Dinitrotoluene, 2,4- Dinitrotoluene, N-Nitrosodiphenylamine |
|-------|-----|-----|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| J73W1 | PHL | 131 | J/None | Benzaldehyde, Phenol |
| | NBZ | 151 | J/None | Acteophenone, N-nitroso-di-n- propylamine, Hexachloroethane, Nitrobenzene, 2,6-Dinitrotoluene, 2,4- Dinitrotoluene, N-Nitrosodiphenylamine |
| J73W3 | PHL | 133 | J/None | Benzaldehyde, Phenol |
| | NBZ | 134 | J/None | Acteophenone, N-nitroso-di-n- propylamine, Hexachloroethane, Nitrobenzene, 2,6-Dinitrotoluene, 2,4- Dinitrotoluene, N-Nitrosodiphenylamine |

Due to laboratory error SVOC surrogates were spiked incorrectly for samples J73T9, J73W1, and J73W3. The spiking solution only contained the surrogates NBZ and PHL which accounts for zero percent recovery of other surrogates. The laboratory re-extracted the affected samples with the corrected surrogates and all of the surrogates were recovered within limits. None of the data was qualified on this basis.

Matrix Spike/Matrix Spike Duplicate (MS/MSD) -

Sample J73W3 was designated for MS/MSD analysis. The MS/MSD analysis met the advisory technical acceptance criteria for percent recovery (%R) and relative percent difference (RPD) with the following exceptions:

| Compound (Re-extract) | MS %R | MSD %R | Control Limits | RPD | Control Limits |
|-----------------------|-------|--------|----------------|-----|----------------|
| 4-Nitrophenol | 122* | 98* | 10-80 | 22 | 50 |
| 2,4-Dinitrophenol | 106* | 76 | 24-96 | 33 | 38 |
| Pentachlorophenol | 123* | 96 | 9-103 | 25 | 50 |

^{*}outside of control limits

None of the data was qualified on this basis.

| Compound | MS %R | MS %R | MSD %R | MSD %R | Control | RPD | RPD | Control |
|------------|------------|------------|------------|------------|---------|------------|------------|---------|
| | (Column 1) | (Column 2) | (Column 1) | (Column 2) | Limits | (Column 1) | (Column 2) | Limits |
| Gamma-BHC | 86 | 90 | 67 | 66 | 56-123 | 25* | 30* | 15 |
| Heptachlor | 93 | 96 | 74 | 75 | 40-131 | 22* | 24* | 20 |
| Aldrin | 93 | 98 | 74 | 75 | 40-120 | 23* | 26* | 22 |
| Dieldrin | 99 | 103 | 76 | 77 | 52-126 | 26* | 29* | 18 |
| Endrin | 102 | 112 | 78 | 83 | 56-121 | 27* | 29* | 21 |
| 4,4'-DDT | 102 | 106 | 74 | . 77 | 38-127 | 30* | 31* | 27 |

^{*}outside of control limits

None of the data was qualified on this basis.

Laboratory Control Sample (LCS) - Acceptable

The LCS analysis met the advisory technical acceptance criteria for percent recovery (%R). None of the data was qualified on this basis.

Internal Standards -

The acceptance criteria for internal standards (IS) are ± 30 seconds for retention time (RT) shifts and -50% to $\pm 200\%$ of the IS area as compared to the IS RT and area of the daily continuing calibration standard. The internal standards are:

| 1,4-Difluorobenzene (DFB) | Chlorobenzene-d5 (CBZ) | |
|------------------------------|------------------------|--|
| 1,4-Dichlorobenzene-d4 (DCB) | Naphthalene-d8 (NPT) | |
| Acenaphthene-d10 (ANT) | Phenanthrene-d10 (PHN) | |
| Chrysene-d12 (CRY) | Perylene-d12 (PRY) | |

All of the results met the IS area and RT shift criteria. None of the data was qualified on this basis.

Florisil Cartridge Check - Acceptable

The frequency of analysis and recovery criteria of florisil used during pests/PCB clean-up were met. None of the data were qualified on this basis.

Gel Permeation Chromatography (GPC) Check - Acceptable

The frequency of analysis and recovery criteria of GPC used during pests/PCB clean-up was met. None of the data was qualified on this basis.

Compound Identification

All of the compounds detected in the GC/MS analyses were within the retention time windows, met the USEPA spectral matching criteria and were judged to be acceptable except for the following situation: Detected compounds with results below the CRQL and that had weak spectra were qualified as non-detected and reported at the CRQL level by the reviewer.

Pesticide and PCB Aroclors were calculated for both primary (CLP-Pest I) and confirmatory (CLP-Pest II) columns. The reviewer used professional judgement during the final identification and qualification of the single component pesticides and Aroclors. Detected pesticides and Aroclors with %Ds >30% but <60% between the two column concentrations were qualified estimated, "J". The lower of the two concentrations were reported on the Form Is. Detected pesticides and Aroclors at concentration <CRQLs with %Ds >60% between two columns were qualified non-detects, "U" with the reporting limits elevated to the CRQL level.

Tentatively Identified Compounds

Peaks that were detected in the samples at areas >10% of the internal standards and were not part of the target compound lists were identified as tentatively identified compounds (TICs). TICs that were both found in the sample and in the associated method blank(s) were crossed-out by the reviewer Peaks that were identified as common laboratory contaminants, solvent preservatives, column bleed or aldol condensation products were also

crossed-out by the reviewer and qualified as unusable, "R". The rest of the peaks identified as TICs were qualified "JN", tentatively identified at the estimated concentration.

Laboratory Contact .

The laboratory was contacted and asked to resubmit forms with discrepancies.

Overall Assessment

The total number of data points was 745. Less than 1% of the total data points were qualified non-detect due to VOCs mass spectra which did not meet spectra matching criteria. Less than 1% of the total data points were qualified non-detects due to VOCs blank contamination. Less than 1% of the total data points were qualified unusable due to exceedances in VOC calibration criteria. 1% of the total data points were qualified non-detects due to SVOCs blank contamination. Less than 1% of the total data points were qualified non-detects due to exceedances in Pest primary and confirmatory column concentrations. Less than 1% of the total data points were qualified non-detects due to Pest blank contamination.

All of the samples were analyzed in accordance with technical specifications outlined in the SOW. The data, as qualified, are acceptable and can be used for all purposes.

| | | Data Qualifiers |
|------------|-------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | U | The analyte was not detected at or above the reported result. |
| | J | The analyte was positively identified. The associated numerical result is an estimate. |
| · | UJ | The analyte was not detected at or above the reported estimated result. The associated numerical value is an estimate of the quantitation limit of the analyte in this sample. |
| | R | The data are unusable for all purposes. |
| | N | There is evidence the analyte is present in this sample. |
| | JN | There is evidence that the analyte is present. The associated numerical result is ar estimate. |
| Bias . | L | Low bias. |
| Qualifiers | Н | High bias. |
| | Q | The result is estimated because the concentration is below the Contract Required Quantitation Limits (CRQLs). |
| | K | Unknown Bias |
| | | |
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1A - FORM I VOA-1 VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

| Lab Name: DataChem Laboratories, Inc. | | Contract: EP-W-05-026 |
|-----------------------------------------|---------|--------------------------------|
| Lab Code: DATAC Case No.: 35417 M | od. Ref | No.: SDG No.: <u>J73T9</u> |
| Matrix: (SOIL/SED/WATER) WATER | | Lab Sample ID: <u>06C02709</u> |
| Sample wt/vol: 5.00 (g/mL) mL | | Lab File ID: PD87C709 |
| Level: (TRACE/LOW/MED) LOW | | Date Received: 06/08/2006 |
| % Moisture: not dec. | | Date Analyzed: 06/13/2006 |
| GC Column: <u>DB624</u> ID: <u>0.53</u> | (mm) | Dilution Factor: 1.0 |
| Soil Extract Volume: | (uL) | Soil Aliquot Volume: (uL) |
| Purae Volume: 5 0 | (mT.) | · |

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/kg) ug/L | Q |
|-----------|---------------------------------------|-------------------------------------------|-----|
| 75-71-8 | Dichlorodifluoromethane | 5.0 | Ü |
| 74-87-3 | Chloromethane | 5.0 | ט |
| 75-0,1,-4 | Vinyl chloride | 5.0 | U. |
| 74-83-9 | Bromomethane | 5.0 | U |
| 75-00-3 | Chloroethane | 5.0 | Ū · |
| 75-69-4 | Trichlorofluoromethane | 5.0 | U |
| 75-35-4 | 1,1-Dichloroethene | 5.0 | U |
| 76-13-1 | 1,1,2-Trichloro-1,2,2-trifluoroethane | 5.0 | Ū |
| 67-64-1 | Acetone . | 10 | U |
| 75-15-0 | Carbon disulfide | 5.0 | U |
| 79-20-9 | Methyl acetate | 5.0 | U |
| 75-09-2 | Methylene chloride | 5.0 | Ŭ |
| 156-60-5 | trans-1,2-Dichloroethene | 5.0 | Ū |
| 1634-04-4 | Methyl tert-butyl ether | 5.0 | Ū |
| 75-34-3 | 1,1-Dichloroethane | 5.0 | U |
| 156-59-2 | cis-1,2-Dichloroethene | 5.0 | U |
| 78-93-3 | 2-Butanone | 10 | Ū |
| 74-97-5 | Bromochloromethane | 5.0 | U |
| 67-66-3 | Chloroform | 5.0 | U |
| 71-55-6 | 1,1,1-Trichloroethane | 5.0 | Ū |
| 110-82-7 | Cyclohexane | 5.0 | Ū |
| 56-23-5 | Carbon tetrachloride | 5.0 | Ū |
| 71-43-2 | Benzene | 5.0 | Ū |
| 107-06-2 | 1,2-Dichloroethane | 5.0 | ט |
| 123-91-1 | 1,4-Dioxane | 100 | XR |

Blatala mil

SOM01.1 (5/2**38**)

1B - FORM I VOA-2 VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

| Lab Name: DataChem Lab | ooratories, Inc. | _ | Contract: EP-W- | 05-026 | · |
|------------------------|------------------|----------|-----------------|-----------------------|-------|
| Lab Code: DATAC | Case No.: 35417 | Mod. Ref | No.: | SDG No.: <u>J73T9</u> | |
| Matrix: (SOIL/SED/WAT | ER) <u>WATER</u> | _ | Lab Sample ID: | 06C02709 | |
| Sample wt/vol: 5.00 | (g/mL) mL | _ | Lab File ID: PD | 87C709 | |
| Level: (TRACE/LOW/MED |) LOW | _ | Date Received: | 06/08/2006 | |
| % Moisture: not dec. | | _ | Date Analyzed: | 06/13/2006 | |
| GC Column: DB624 | ID: <u>0.53</u> | _ (mm) | Dilution Factor | : 1.0 | |
| Soil Extract Volume: _ | | _ (uL) | Soil Aliquot Vo | lume: | (uL) |
| Purae Volume: 5 0 | - | (mT.) | | | |

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/kg) ug/L | Q |
|-------------|-----------------------------|-------------------------------------------|---|
| 79-01-6 | Trichloroethene | 5.0 | U |
| 108-87-2 | Methylcyclohexane | 5.0 | U |
| 78-87-5 | 1,2-Dichloropropane | | U |
| 75-27-4 | Bromodichloromethane | 5.0 | Ŭ |
| 10061-01-5 | cis-1,3-Dichloropropene | 5.0 | Ü |
| 108-10-1 | 4-Methyl-2-Pentanone | 10 | U |
| 108-88-3 | Toluene | 5.0 | Ū |
| 10061-02-6 | trans-1,3-Dichloropropene | 5.0 | U |
| 79-00-5 | 1,1,2-Trichloroethane | 5.0 | U |
| 127-18-4 | Tetrachloroethene | 5.0 | Ŭ |
| 591-78-6 | 2-Hexanone | 10 | U |
| 124-48-1 | Dibromochloromethane | 5.0 | Ū |
| 106-93-4 | 1,2-Dibromoethane | . 5.0 | Ū |
| 108-90-7 | Chlorobenzene | 5.0 | Ū |
| 100-41-4 | Ethylbenzene | 5.0 | ט |
| 95-47-6 | o-Xylene | 5.0 | U |
| 179601-23-1 | m,p-Xylene | 5.0 | Ū |
| 100-42-5 | Styrene | 5.0 | Ü |
| 75-25-2 | Bromoform | 5.0 | U |
| 98-82-8 | Isopropylbenzene | 5.0 | Ū |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 5.0 | Ü |
| 541-73-1 | 1,3-Dichlorobenzene | 5.0 | Ŭ |
| 106-46-7 | 1,4-Dichlorobenzene | 5.0 | Ü |
| 95-50-1 | 1,2-Dichlorobenzene | 5.0 | U |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | 5.0 | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 5.0 | Ū |
| 87-61-6 | 1,2,3-Trichlorobenzene | 5.0 | Ü |

B 6/20/20

SOM01.1 (5/2039)

1J - FORM I VOA-TIC VOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

J73T9

| | Lab Name: Data | Chem Laboratories, Inc. | Contrac | t: EP-W | -05-026 | |
|-----------|----------------|---------------------------|----------|--------------|------------|---|
| | | C Case No.: 35417 Mod. Re | | | | |
| | Matrix: (SOIL/ | SED/WATER) WATER | Lab Sam | ple ID: | 06C02709 | |
| | Sample wt/vol: | 5.00 (g/mL) mL | Lab Fil | e ID: P | D87C709 | |
| | • | LOW/MED) LOW | | | 06/08/2006 | |
| | | ot dec. | | | 06/13/2006 | |
| | | 24 ID: <u>0.53</u> (mm) | | | | |
| | | /olume:(uL) | | | | |
| | | | | | 5.0 | |
| | CAS NUMBER | COMPOUND NAME | | | EST. CONC. | |
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| ĺ | E9667961 | Total Alkanes | | N/A | | R |

¹EPA-designated Registry Number.

SOM01.1 (5/20**48**

1A - FORM I VOA-1 VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

| J73W0 | |
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| Lab Name: DataChem Laboratories, Inc. | | Contract: EP-W-0 | 05-026 | |
|---------------------------------------|----------|------------------|-----------------------|------|
| Lab Code: DATAC Case No.: 35417 N | Mod. Ref | No.: | SDG No.: <u>J73T9</u> | |
| Matrix: (SOIL/SED/WATER) SOIL | a | Lab Sample ID: (| 06C02710 | |
| Sample wt/vol: <u>5.87</u> (g/mL) g | . | Lab File ID: SE | 31C710 | |
| Level: (TRACE/LOW/MED) LOW | - | Date Received: (| 06/08/2006 | |
| % Moisture: not dec. <u>14</u> | | Date Analyzed: (| 06/14/2006 | |
| GC Column: DB624 ID: 0.53 | _ (mm) | Dilution Factor | : 1.0 | |
| Soil Extract Volume: | _ (uL) · | Soil Aliquot Vo | lume: | (uL) |
| Durge Velumes 10 0 | (mT) | | | |

| Purge | Volume: | 10.0 | (mL) |
|-------|---------|------|------|
| _ | | | |

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg | Q |
|-----------|---------------------------------------|--------------------------------------------|----------------|
| 75-71-8 | Dichlorodifluoromethane | 5.0 | Ü |
| 74-87-3 | Chloromethane | 5.0 | Ū |
| 75-01-4 | Vinyl chloride | 5.0 | ∵ড |
| 74-83-9 | Bromomethane | 5.0 | Ü |
| 75-00-3 | Chloroethane | 5.0 | Ü |
| 75-69-4 | Trichlorofluoromethane | 5.0 | Ü |
| 75-35-4 | 1,1-Dichloroethene | 5.0 | Ü |
| 76-13-1 | 1,1,2-Trichloro-1,2,2-trifluoroethane | 5.0 | ט |
| 67-64-1 | Acetone | 40 | |
| 75-15-0 | Carbon disulfide | 5·0 -0.54 | XU |
| 79-20-9 | Methyl acetate | 5.0 | Ū |
| 75-09-2 | Methylene chloride | 5.0 0.5 7 | IN U |
| 156-60-5 | trans-1,2-Dichloroethene | 5.0 | U |
| 1634-04-4 | Methyl tert-butyl ether | 5.0 | U |
| 75-34-3 | 1,1-Dichloroethane | 5.0 | Ü |
| 156-59-2 | cis-1,2-Dichloroethene | 5.0 | U |
| 78-93-3 | 2-Butanone | 19 | |
| 74-97-5 | Bromochloromethane | 5.0 | U. |
| 67-66-3 | Chloroform | 5.0 | U |
| 71-55-6 | 1,1,1-Trichloroethane | 5.0 | U |
| 110-82-7 | Cyclohexane ' | 5.0 | Ŋ. |
| 56-23-5 | Carbon tetrachloride | 5.0 | Ū. |
| 71-43-2 | Benzene | 5.0 | Ū ⁻ |
| 107-06-2 | 1,2-Dichloroethane | 5.0 | Ü |
| 123-91-1 | 1,4-Dioxane | 100 | XR |

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1B - FORM I VOA-2 VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

| .77 | 3W0 | |
|-----|-----|--|

| Lab Name: DataChem Laboratories, Inc. | | Contract: EP-W-05-026 |
|---------------------------------------|---------|---------------------------|
| Lab Code: DATAC Case No.: 35417 | Mod. Re | f No.: SDG No.: J73T9 |
| Matrix: (SOIL/SED/WATER) SOIL | | Lab Sample ID: 06C02710 |
| Sample wt/vol: 5.87 (g/mL) g | | Lab File ID: SE31C710 |
| Level: (TRACE/LOW/MED) LOW | | Date Received: 06/08/2006 |
| % Moisture: not dec. 14 | | Date Analyzed: 06/14/2006 |
| GC Column: DB624 ID: 0.53 | (mm) | Dilution Factor: 1.0 |
| Soil Extract Volume: | (uL) | Soil Aliquot Volume:(uL) |
| Purge Volume: 10.0 | (mI.) | |

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg | Q |
|-------------|-----------------------------|--------------------------------------------|-------|
| 79-01-6 | Trichloroethene | 5.0 | U |
| 108-87-2 | Methylcyclohexane | 5.0 | Ū |
| 7887-5 | 1,2-Dichloropropane | | U |
| 75-27-4 | Bromodichloromethane | 5.0 | U |
| 10061-01-5 | cis-1,3-Dichloropropene | 5.0 | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 10 | U |
| 108-88-3 | Toluene | 1.2 | JO |
| 10061-02-6 | trans-1,3-Dichloropropene | 5.0 | Ü |
| 79-00-5 | 1,1,2-Trichloroethane | 5.0 | Ū |
| 127-18-4 | Tetrachloroethene | 5.0 | Ü |
| 591-78-6 | 2-Hexanone | 10 | Ū |
| 124-48-1 | Dibromochloromethane | 5.0 | U |
| 106-93-4 | 1,2-Dibromoethane | 5.0 | U |
| 108-90-7 | Chlorobenzene | 5.0 | Ū |
| 100-41-4 | Ethylbenzene | 5.0 -0.12 | 7U |
| 95-47-6 | o-Xylene | 5.0 | U |
| 179601-23-1 | m,p-Xylene | 5.0 0.39 | NU |
| 100-42-5 | Styrene | 5.0 | U |
| 75-25-2 | Bromoform | 5.0 | ָ ט · |
| 98-82-8 | Isopropylbenzene | 5.0 -0.25 | 1U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 5.0 | Ū |
| 541-73-1 | 1,3-Dichlorobenzene | 5.0 | U |
| 106-46-7 | 1,4-Dichlorobenzene | 5.0 | ָט |
| 95-50-1 | 1,2-Dichlorobenzene | 5.0 | Ū |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | 5.0 | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 5.0 | Ū |
| 87-61-6 | 1,2,3-Trichlorobenzene | 5.0 | Ü, |

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SOM01.1 (5/2003)

1J - FORM I VOA-TIC VOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

| EPA | SAMPLE | NO. | _ |
|-----|--------|-----|---|
| | J73W0 | | 7 |

| Lab Name: Data | Chem Laboratories, Inc. | Contrac | ct: <u>EP-W-</u> | -05-026 | |
|----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|--------------------------------------------------|---------------------------------------|--------------------------------------------------|
| Lab Code: DATA | AC Case No.: 35417 Mod | . Ref No.: _ | | SDG No.: <u>J73T9</u> | |
| Matrix: (SOIL | /SED/WATER) SOIL | Lab Sar | mple ID: | 06C02710 | |
| | : 5.87 (g/mL) g | | | E31C710 | |
| | /LOW/MED) LOW | | | 06/08/2006 | |
| | ot dec. 14 | | | 06/14/2006 | |
| | 524 ID: 0.53 (m | | | r: 1.0 | |
| | Volume: (U | • | | | |
| | UNITS: (ug/L or ug/kg) ug/kg | | | | |
| CAS NUMBER | COMPOUND NAME | - · · - · · · · · · · · · · · · · · · · | RT | EST. CONC. | |
| O1 | CONTROLL MAIL | | 1(1 | Bor. conc. | |
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| 03 | | | | | |
| 04 | The state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the s | | | · · · · · · · · · · · · · · · · · · · | |
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| 30 | Makal Albana | | 31/2 | | |
| E966796 ¹ | Total Alkanes | | N/A | | <u></u> _ |

¹EPA-designated Registry Number.

SOM01.1 (5/20**8**)

1A - FORM I VOA-1 VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

| J 7 | 3W2 | |
|------------|-----|--|
| | | |

| Lab Name: DataChem Labor | atories, Inc. | | Contract: EP-W- | -05-026 | |
|--------------------------|----------------------|----------|-----------------|-----------------------|--------|
| Lab Code: DATAC Ca | se No.: <u>35417</u> | Mod. Ref | No.: | SDG No.: <u>J73T9</u> | |
| Matrix: (SOIL/SED/WATER) | SOIL | | Lab Sample ID: | 06C02712 | |
| Sample wt/vol: 5.90 | (g/mL) <u>g</u> | _ | Lab File ID: SI | E32C712 | |
| Level: (TRACE/LOW/MED) L | OW | | Date Received: | 06/08/2006 | |
| % Moisture: not dec. 25 | | | Date Analyzed: | 06/14/2006 | |
| GC Column: DB624 | ID: 0.53 | (mm) | Dilution Facto | r: <u>1.0</u> | |
| Soil Extract Volume: | | (uL) | Soil Aliquot V | olume: | _ (uL) |
| Puras Valumo, 10 0 | | /mT \ | | | |

| Purge Volume: 10.0 (ml | Ĺ) |) |
|------------------------|----|---|
|------------------------|----|---|

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg | Q |
|-----------|---------------------------------------|--------------------------------------------|--------|
| 75-71-8 | Dichlorodifluoromethane | 5.6 | U |
| 74-87-3 | Chloromethane | 5.6 | U |
| 75-01-4 | Vinyl chloride | 56 | U. |
| 74-83-9 | Bromomethane | 5.6 | U |
| 75-00-3 | Chloroethane | 5.6 | Ū |
| 75-69-4 | Trichlorofluoromethane | 5.6 | U |
| 75-35-4 | 1,1-Dichloroethene | 5.6 | Ū |
| 76-13-1 | 1,1,2-Trichloro-1,2,2-trifluoroethane | 5.6 | Ū |
| 67-64-1 | Acetone | 26 | , |
| 75-15-0 | Carbon disulfide | 5.6 | Ū |
| 79-20-9 | Methyl acetate | 5.6 | Ū |
| 75-09-2 | Methylene chloride | 56 0.94 | لا ≅لر |
| 156-60-5 | trans-1,2-Dichloroethene | 5.6 | U |
| 1634-04-4 | Methyl tert-butyl ether | 5.6 | U |
| 75-34-3 | 1,1-Dichloroethane | 5.6 | U |
| 156-59-2 | cis-1,2-Dichloroethene | 5.6 | Ū |
| 78-93-3 | 2-Butanone | 24 | ŀ |
| 74-97-5 | Bromochloromethane | 5.6 | Ū |
| 67-66-3 | Chloroform | 5.6 | Ū |
| 71-55-6 | 1,1,1-Trichloroethane . | 5.6 | U |
| 110-82-7 | Cyclohexane | 5.6 | U |
| 56-23-5 | Carbon tetrachloride | 5.6 | Ū |
| 71-43-2 | Benzene | 5.6 | Ū |
| 107-06-2 | 1,2-Dichloroethane | . 5.6 | Ū |
| 123-91-1 | 1,4-Dioxane | 110 | XR |

SOM01.1 (5/2053)

1B - FORM I VOA-2 VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

| T7 | 3W2 | |
|-----|-------|--|
| 0 1 | J11 C | |

| Lab Name: DataChem Laboratories, Inc. | _ | Contract: EP-W-0 | 05-026 | |
|---------------------------------------|--------------|------------------|-----------------------|------|
| Lab Code: DATAC Case No.: 35417 | Mod. Ref | No.: | SDG No.: <u>J73T9</u> | |
| Matrix: (SOIL/SED/WATER) SOIL . | _ | Lab Sample ID: 0 | 06C02712 | |
| Sample wt/vol: 5.90 (g/mL) g | _ | Lab File ID: SE | 32C712 | |
| Level: (TRACE/LOW/MED) LOW | _ | Date Received: (| 06/08/2006 | |
| % Moisture: not dec. 25 | _ | Date Analyzed: (| 06/14/2006 | |
| GC Column: DB624 ID: 0.53 | _ (mm) | Dilution Factor | : 1.0 | |
| Soil Extract Volume: | _ (uL) | Soil Aliquot Vo | lume: | (uL) |
| Purge Volume: 10.0 | _ (mL) | | | |

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg | Q |
|-------------|-----------------------------|--------------------------------------------|-----------|
| 79-01-6 | Trichloroethene | 5.6 | U |
| 108-87-2 | Methylcyclohexane | 5.6 | U |
| 78-87-5. | 1,2-Dichloropropane. | 5.6 | . "បូ." - |
| 75-27-4 | Bromodichloromethane | 5.6 | υ |
| 10061-01-5 | cis-1,3-Dichloropropene | 5.6 | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 11 | Ū |
| 108-88-3 | Toluene | 5.0 0.18 | IN |
| 10061-02-6 | trans-1,3-Dichloropropene | 5.6 | Ü |
| 79-00-5 | 1,1,2-Trichloroethane | 5.6 | U |
| 127-18-4 | Tetrachloroethene | 5.6 | U |
| 591-78-6 | 2-Hexanone | 11 | U |
| 124-48-1 | Dibromochloromethane | 5.6 | ט |
| 106-93-4 | 1,2-Dibromoethane | 5.6 | ט |
| 108-90-7 | Chlorobenzene | 5.6 | Ū |
| 100-41-4 | Ethylbenzene | 5.6 | U |
| 95-47-6 | o-Xylene | 5.6 | Ū |
| 179601-23-1 | m,p-Xylene | 5.6 2-21 | TU |
| 100-42-5 | Styrene | 5.6 | Ū |
| 75-25-2 | Bromoform | 5.6 | · U |
| 98-82-8 | Isopropylbenzene | 5.6 | Ω - |
| 79-34-5 | 1,1,2,2-Tetrachloroethane . | 5.6 | U |
| 541-73-1 | 1,3-Dichlorobenzene | 5.6 | U |
| 106-46-7 | 1,4-Dichlorobenzene | 5.6 | U |
| 95-50-1 | 1,2-Dichlorobenzene | 5.6 | U |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | 5.6 | Ū |
| 120-82-1 | 1,2,4-Trichlorobenzene | 5.6 | Ū |
| 87-61-6 | 1,2,3-Trichlorobenzene | 5.6 | Ū |

100 SOM01.1 (5) 2058

1J - FORM I VOA-TIC VOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

J73W2

| | | | | | | <u> </u> | |
|----------|----------------------|------------------------------|-------------|---------------------------------------|-----------------|-----------------------|--------------|
| ٠ | Lab Name: Data | Chem Laboratories, Inc. | | Contrac | ct: <u>EP-W</u> | -05-026 | |
| | Lab Code: DATA | C Case No.: 35417 Mo | d. Ref | No.: | | SDG No.: <u>J73T9</u> | |
| | Matrix: (SOIL | SED/WATER) SOIL | | Lab Sar | mple ID: | : 06C02712 | |
| | Sample wt/vol: | 5.90 (g/mL) g | | Lab Fil | Le ID: S | E32C712 | |
| | | LOW/MED) LOW | | Date Re | eceived: | 06/08/2006 | |
| | | ot dec. <u>25</u> | | Date Ar | nalyzed: | 06/14/2006 | |
| | | 24 ID: 0.53 | | | | or: 1.0 | |
| | | Volume: | | | | | |
| | | UNITS: (ug/L or ug/kg) ug/kg | | | | | |
| | CAS NUMBER | COMPOUND NAME | | | RT | EST. CONC. | |
| 01 | | | | | 112 | 2011 301.01 | * |
| 02 | | | | | | · | |
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| 29 30 | | | | | | | |
| J () | E966796 ¹ | Total Alkanes | | | N/A | | |

¹EPA-designated Registry Number.

1A - FORM I VOA-1 VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

| J73W3 |
|-------|
|-------|

| Lab Name: DataChem Laboratories, Inc. | _ | Contract: EP-W-05-026 | |
|---------------------------------------|----------|------------------------------|------|
| Lab Code: DATAC Case No.: 35417 | Mod. Ref | f No.: SDG No.: <u>J73T9</u> | |
| Matrix: (SOIL/SED/WATER) WATER | _ | Lab Sample ID: 06C02713 | |
| Sample wt/vol: 5.00 (g/mL) mL | _ | Lab File ID: PD88C713 | |
| Level: (TRACE/LOW/MED) LOW | _ | Date Received: 06/08/2006 | |
| % Moisture: not dec. | _ | Date Analyzed: 06/13/2006 | |
| GC Column: DB624 ID: 0.53 | _ (mm) | Dilution Factor: 1.0 | |
| Soil Extract Volume: | _ (uL) | Soil Aliquot Volume: | (uL) |
| Dumas Volumes F O | /m T \ | | |

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/kg) ug/L | Q |
|-----------|---------------------------------------|-------------------------------------------|----|
| 75-71-8 | Dichlorodifluoromethane | 5.0 | Ũ |
| 74-87-3 | Chloromethane | 5.0 | ט |
| 75-01-4 | Vinyl chloride | 5.0 | Ū |
| 74-83-9 | Bromomethane | 5.0 | Ū |
| 75-00-3 | Chloroethane | 5.0 | U |
| 75-69-4 | Trichlorofluoromethane | 5.0 | Ū |
| 75-35-4 | 1,1-Dichloroethene | 5.0 | Ū |
| 76-13-1 | 1,1,2-Trichloro-1,2,2-trifluoroethane | 5.0 | Ū |
| 67-64-1 | Acetone | 10 | U |
| 75-15-0 | Carbon disulfide | 5.0 | Ū |
| 79-20-9 | Methyl acetate | 5.0 | Ū |
| 75-09-2 | Methylene chloride | 5.0 | Ū |
| 156-60-5 | trans-1,2-Dichloroethene | 5.0 | Ū |
| 1634-04-4 | Methyl tert-butyl ether | 5.0 | Ū |
| 75-34-3 | 1,1-Dichloroethane | 5.0 | ט |
| 156-59-2 | cis-1,2-Dichloroethene | 5.0 | Ū |
| 78-93-3 | 2-Butanone | 10 | U |
| 74-97-5 | Bromochloromethane | 5.0 | Ū |
| 67-66-3 | Chloroform | 5.0 | Ū |
| 71-55-6 | 1,1,1-Trichloroethane | 5.0 | Ū |
| 110-82-7 | Cyclohexane | 5.0 | Ū |
| 56-23-5 | Carbon tetrachloride | 5.0 | Ü |
| 71-43-2 | Benzene | 5.0 | U |
| 107-06-2 | 1,2-Dichloroethane | 5.0 | U |
| 123-91-1 | 1,4-Dioxane | 100 | XR |

SOM01.1 (5/2063)

1B - FORM I VOA-2 VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

| T 7 252 2 | | |
|-----------|--|--|
| J73W3 | | |

| Lab Name: DataChem Laboratories, Inc. | | Contract: EP-W-05-026 |
|---------------------------------------|---------|----------------------------|
| Lab Code: DATAC Case No.: 35417 Mc | od. Ref | No.: SDG No.: <u>J73T9</u> |
| Matrix: (SOIL/SED/WATER) WATER | | Lab Sample ID: 06C02713 |
| Sample wt/vol: 5.00 (g/mL) mL | | Lab File ID: PD88C713 |
| Level: (TRACE/LOW/MED) LOW | | Date Received: 06/08/2006 |
| % Moisture: not dec. | | Date Analyzed: 06/13/2006 |
| GC Column: DB624 ID: 0.53 | (mm) | Dilution Factor: 1.0 |
| Soil Extract Volume: | (uL) | Soil Aliquot Volume: (uL |
| Purge Volume: 5.0 | (mL) | |

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/kg) ug/L | Q |
|-------------|-----------------------------|-------------------------------------------|-----|
| 79-01-6 | Trichloroethene | 5.0 | Ū |
| 108-87-2 | Methylcyclohexane | 5.0 | ט |
| 78-87-5 | 1,2-Dichloropropane | 5.0 | Ū |
| 75-27-4 | Bromodichloromethane | 5.0 | Ū |
| 10061-01-5 | cis-1,3-Dichloropropene | 5.0 | ט |
| 108-10-1 | 4-Methyl-2-Pentanone | 10 | U |
| 108-88-3 · | Toluene | 5.0 | Ü |
| 10061-02-6 | trans-1,3-Dichloropropene | 5.0 | Ū |
| 79-00-5 | 1,1,2-Trichloroethane | 5.0 | Ü |
| 127-18-4 | Tetrachloroethene | 5.0 | Ŭ |
| 591-78-6 | 2-Hexanone | 10 | Ū |
| 124-48-1 | Dibromochloromethane | 5.0 | Ū |
| 106-93-4 | 1,2-Dibromoethane | 5.0 | Ū |
| 108-90-7 | Chlorobenzene | 5.0 | Ū |
| 100-41-4 | Ethylbenzene | 5.0 | U |
| 95-47-6 | o-Xylene | 5.0 | U |
| 179601-23-1 | m,p-Xylene | 5.0 | Ū |
| 100-42-5 | Styrene | 5.0 | U |
| 75-25-2 | Bromoform | 5.0 | Ū |
| 98-82-8 | Isopropylbenzene | . 5.0 | U |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 5.0 | U |
| 541-73-1 | 1,3-Dichlorobenzene | 5.0 | Ū |
| 106-46-7 | 1,4-Dichlorobenzene | 5.0 | U |
| 95-50-1 | 1,2-Dichlorobenzene | 5.0 | U |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | 5.0 | Ü |
| 120-82-1 | 1,2,4-Trichlorobenzene | 5.0 | . Ū |
| 87-61-6 | 1,2,3-Trichlorobenzene | 5.0 | Ū |

SOM01.1 (5 (2)68)

1J - FORM I VOA-TIC VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

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| | | | , |
| | J73W3 | | |

| Lab Name: <u>Data</u> | Chem Laboratories, Inc. | Contract: EP-W- | -05-026 | |
|-----------------------|-----------------------------|-----------------|----------------------------------------|--------------------------------------------------|
| Lab Code: DATA | C Case No.: 35417 Mod. R | ef No.: | SDG No.: <u>J73T9</u> | |
| Matrix: (SOIL/ | (SED/WATER) WATER | Lab Sample ID: | 06C02713 | |
| Sample wt/vol: | 5.00 (g/mL) mL | Lab File ID: PI | 088C713 | |
| Level: (TRACE/ | LOW/MED) LOW | Date Received: | 06/08/2006 | |
| | ot dec. | Date Analyzed: | 06/13/2006 | |
| | 24 ID: <u>0.53</u> (mm) | | r: 1.0 | |
| | Volume:(uL) | | olume: | |
| | UNITS: (ug/L or ug/kg) ug/L | | | |
| CAS NUMBER | COMPOUND NAME | | EST. CONC. | |
| CAS NOMBER | CONFOUND NAME | 1/1 | EST. CONC. | Ψ. |
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| E966796¹ | Total Alkanes | N/A | | ļ |

1A - FORM I VOA-1 VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

| J7. | 3W7 | |
|-----|-----|--|

| Lab Name: DataChem Laboratories, Inc. | _ | Contract: EP-W-05-026 |
|---------------------------------------|----------|---------------------------|
| Lab Code: DATAC Case No.: 35417 N | Mod. Ref | No.: SDG No.: J73T9 |
| Matrix: (SOIL/SED/WATER) WATER | _ | Lab Sample ID: 06C02714 |
| Sample wt/vol: 5.00 (g/mL) mL | _ | Lab File ID: PD89C714 |
| Level: (TRACE/LOW/MED) LOW | - | Date Received: 06/08/2006 |
| % Moisture: not dec. | _ | Date Analyzed: 06/13/2006 |
| GC Column: DB624 ID: 0.53 | _ (mm) | Dilution Factor: 1.0 |
| Soil Extract Volume: | (uL) | Soil Aliquot Volume:(uL) |
| Purge Volume: 5.0 | (mL) | |

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/kg) ug/L | Q |
|------------------|---------------------------------------|-------------------------------------------|----------------------|
| 75-71-8 | Dichlorodifluoromethane | 5.0 | U |
| 74-87-3 | Chloromethane | 5.0 | Ū |
| 75-01-4 | Vinyl chloride | Since | U ₂₂₈₇₄ . |
| 74-83-9 | Bromomethane | 5.0 | Ū |
| 75-00-3 | Chloroethane | 5.0 | Ū |
| 75-69-4 | Trichlorofluoromethane | 5.0 | U |
| 75-35-4 | 1,1-Dichloroethene | 5.0 | Ü |
| 76-13-1 | 1,1,2-Trichloro-1,2,2-trifluoroethane | 5.0 | U |
| 67-64-1 | Acetone | 10 | Ū |
| 75-15-0 | Carbon disulfide | 5.0 | U |
| 79-20-9 | Methyl acetate | 5.0 | Ū |
| 75-09-2 | Methylene chloride | 5.0 | Ū |
| 156-60-5 | trans-1,2-Dichloroethene | 5.0 | Ü |
| 1634-04-4 | Methyl tert-butyl ether | 5.0 | Ū |
| 75-34-3 | 1,1-Dichloroethane | . 5.0 | Ü |
| 156-59-2 | cis-1,2-Dichloroethene | 5.0 | Ū |
| 78-93-3 | 2-Butanone | 10 | Ū |
| 74-97-5 | Bromochloromethane | 5.0 | U |
| 67-66-3 | Chloroform | 5.0 | Ū |
| 71 - 55-6 | 1,1,1-Trichloroethane | 5.0 | U |
| 110-82-7 | Cyclohexane | 5.0 | Ū |
| 56-23-5 | Carbon tetrachloride | 5.0 | Ū |
| 71-43-2 | Benzene | 5.0 | Ū |
| 107-06-2 | 1,2-Dichloroethane | 5.0 | Ū |
| 123-91-1 | 1,4-Dioxane | 100 | XR |

8 (20 00) MO1.1 (5/2006)

1B - FORM I VOA-2 VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

| J73 W 7 | |
|----------------|--|

| Lab Name: DataChem Laboratories, Inc. | <u>.</u> . | Contract: EP-W-05-026 |
|---------------------------------------|--------------|-----------------------------|
| Lab Code: DATAC Case No.: 35417 | Mod. Ref | No.: SDG No.: <u>J</u> 73T9 |
| Matrix: (SOIL/SED/WATER) WATER | | Lab Sample ID: 06C02714 |
| Sample wt/vol: 5.00 (g/mL) mL | | Lab File ID: PD89C714 |
| Level: (TRACE/LOW/MED) LOW | _ | Date Received: 06/08/2006 |
| % Moisture: not dec. | _ | Date Analyzed: 06/13/2006 |
| GC Column: DB624 ID: 0.53 | (mm) | Dilution Factor: 1.0 |
| Soil Extract Volume: | _ (uL) | Soil Aliquot Volume:(uL) |
| Purge Volume: 5.0 | _ (mL) | |

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/kg) ug/L | Q |
|------------------|-----------------------------|-------------------------------------------|----------|
| 79-01-6 | Trichloroethene | 5.0 | Ü |
| 108-87-2 | Methylcyclohexane | . 5.0 | <u> </u> |
| 78-87-5 | 1,2-Dichloropropane | 5.0 | ਆ-ਸੂ ਾਂ |
| 75-27-4 | Bromodichloromethane | 5.0 | ט |
| 10061-01-5 | cis-1,3-Dichloropropene | 5.0 | U |
| 108-10-1 | 4-Methyl-2-Pentanone | 10 | Ū. |
| 108-88-3 | Toluene | 5.0 | Ū |
| 10061-02-6 | trans-1,3-Dichloropropene | 5.0 | Ū |
| 79-00-5 | 1,1,2-Trichloroethane | 5.0 | ט |
| 127-18-4 | Tetrachloroethene | 5.0 | ט |
| 591-78-6 | 2-Hexanone | 10 | מ |
| 124-48-1 | Dibromochloromethane | 5.0 | ש |
| 106-93-4 | 1,2-Dibromoethane | 5.0 | Ü |
| 108-90-7 | Chlorobenzene | 5.0 | ט |
| 100-41-4 | Ethylbenzene | 5.0 | מ |
| 95-47-6 | o-Xylene | 5.0 | ט |
| 179601-23-1 | m,p-Xylene | 5.0 | ט |
| 100-42-5 . | Styrene | 5.0 | ט |
| 75-25-2 | Bromoform | . 5.0 | υ |
| 98-82-8 | Isopropylbenzene | 5.0 | Ü |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 5.0 | U |
| 541-73-1 | 1,3-Dichlorobenzene | 5.0 | Ü |
| 106-46-7 | 1,4-Dichlorobenzene | . 5.0 | U |
| 95-50 - 1 | 1,2-Dichlorobenzene | 5.0 | U |
| 96-12-8 | 1,2-Dibromo-3-chloropropane | 5.0 | U |
| 120-82-1 | 1,2,4-Trichlorobenzene | 5.0 | Ü |
| 87-61-6 | 1,2,3-Trichlorobenzene | 5.0 | Ŭ |

SOMO1.1 (5/2023)

1J - FORM I VOA-TIC VOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

| EPA | SAMPLE | NO. |
|-----|--------|-----|
| | J73W7 | |

| | Lab Name: <u>Data</u> | Chem Laboratories, Inc. | Contract: EP-W | 1-05-026 | | |
|------------|-----------------------------------|-----------------------------|---------------------------|-----------------------|--------------|--|
| | Lab Code: DATA | .C Case No.: 35417 Mod. Re | f No.: | SDG No.: <u>J73T9</u> | | |
| | Matrix: (SOIL/ | SED/WATER) WATER | Soil Aliquot Volume: (uL) | | | |
| | | 5.00 (g/mL) mL | | | | |
| | | /LOW/MED) LOW | | | | |
| | | ot dec. | | | | |
| | | | | | | |
| | | 24 ID: 0.53 (mm) | | | | |
| | | Volume: (uL) | | | | |
| | CONCENTRATION | UNITS: (ug/L or ug/kg) ug/L | | | | |
| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q | |
| - | 115-07-1 | Propene | 3.05 | | JN | |
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| Ľ | E9667961 | Total Alkanes | N/A | | | |

¹EPA-designated Registry Number.

SOM01.1 (5/20**78**)

1D - FORM I SV-1 SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

| J | 73T9 | |
|---|------|--|

| Lab Name: DataChem Lab | 5-026 | | | |
|------------------------|------------------|-------------|-------------------|----------------------|
| Lab Code: DATAC | Case No.: 35417 | Mod. Ref | No.: S | DG No.: <u>J73T9</u> |
| Matrix: (SOIL/SED/WAT | ER) WATER | | Lab Sample ID: 06 | 6C02709 |
| Sample wt/vol: 1000 | (g/mL) <u>mL</u> | | Lab File ID: RNG |)4C09 |
| Level: (LOW/MED) LOW | | | Extraction: (Type | e) CONT |
| % Moisture: | Decanted: (Y/N) | | Date Received: 06 | 5/08/2006 |
| Concentrated Extract | Volume: 1000 | (uL) | Date Extracted: (| 06/13/2006 |
| Injection Volume: 1.0 | (uL) GPC Factor | c: | Date Analyzed | : 06/19/2006 |
| GPC Cleanup: (Y/N) N | pH: | | Dilution Factor: | 1.0 |

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/kg) ug/L | Q |
|----------|------------------------------|-------------------------------------------|-----|
| 100-52-7 | Benzaldehyde | 5.0 | U |
| 108-95-2 | Phenol | 5.0 | U |
| 111-44-4 | Bis(2-chloroethyl)ether | 5,0 | Ŭ., |
| 95-57-8 | 2-Chlorophenoi | 5.0 | Ü |
| 95-48-7 | 2-Methylphenol | 5.0 | Ų |
| 108-60-1 | 2,2'-Oxybis(1-chloropropane) | 5.0 | Ū |
| 98-86-2 | Acetophenone . | 5.0 | Ū |
| 106-44-5 | 4-Methylphenol | 5.0 | U |
| 621-64-7 | N-Nitroso-di-n-propylamine | 5.0 | U |
| 67-72-1 | Hexachloroethane | 5.0 | U |
| 98-95-3 | Nitrobenzene | 5.0 | Ü |
| 78-59-1 | Isophorone | 5.0 | U |
| 88-75-5 | 2-Nitrophenol | 5.0 | U |
| 105-67-9 | 2,4-Dimethylphenol | 5.0 | Ü |
| 111-91-1 | Bis(2-chloroethoxy)methane | 5.0 | Ū |
| 120-83-2 | 2,4-Dichlorophenol | 5.0 | Ū |
| 91-20-3 | Naphthalene | 5.0 | Ū |
| 106-47-8 | 4-Chloroaniline | · 5.0 | Ū |
| 87-68-3 | Hexachlorobutadiene | 5.0 | U |
| 105-60-2 | Caprolactam | 5.0 | U |
| 59-50-7 | 4-Chloro-3-methylphenol | 5.0 | Ü |
| 91-57-6 | 2-Methylnaphthalene | 5.0 | Ū |
| 77-47-4 | Hexachlorocyclopentadiene | 5.0 | Ū |
| 88-06-2 | 2,4,6-Trichlorophenol | 5.0 | Ū |
| 95-95-4 | 2,4,5-Trichlorophenol | 5.0 | Ū |
| 92-52-4 | 1,1'-Biphenyl | 5.0 | Ü |
| 91-58-7 | 2-Chloronaphthalene | 5.0 | Ū |
| 88-74-4 | 2-Nitroaniline | 10 | U |
| 131-11-3 | Dimethylphthalate | 5.0 | Ū |
| 606-20-2 | 2,6-Dinitrotoluene | 5.0 | U |
| 208-96-8 | Acenaphthylene | 5.0 | Ü |
| 99-09-2 | 3-Nitroaniline | 10 | U |
| 83-32-9 | Acenaphthene | 5.0 | Ū |

Use this run

BP 8/25/00

EPA SAMPLE NO.

| | _ | |
|-------|---|--|
| J73T9 | | |
| | | |

| Lab Name: DataChem Laboratories, Inc. | Contract: EP-W-05-026 |
|------------------------------------------|--------------------------------|
| Lab Code: DATAC Case No.: 35417 Mod. Ref | No.: SDG No.: <u>J</u> 73T9 |
| Matrix: (SOIL/SED/WATER) WATER | Lab Sample ID: <u>06C02709</u> |
| Sample wt/vol: 1000 (g/mL) mL | Lab File ID: RNG04C09 |
| Level: (LOW/MED) LOW | Extraction: (Type) CONT |
| % Moisture: Decanted: (Y/N) | Date Received: 06/08/2006 |
| Concentrated Extract Volume: 1000 (uL) | Date Extracted: 06/13/2006 |
| Injection Volume: 1.0 (uL) GPC Factor: | Date Analyzed: 06/19/2006 |
| GPC Cleanup: (Y/N) N pH: | Dilution Factor: 1.0 |

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/kg) ug/L | Q |
|-----------|----------------------------|-------------------------------------------|---|
| 51-28-5 | 2,4-Dinitrophenol | 10 | Ū |
| 100-02-7 | 4-Nitrophenol | 10 | U |
| 132-64-9 | Dibenzofuran | 5.0 | U |
| 121-14-2 | 2,4-Dinitrotoluene | . 5.0 | Ü |
| 84-66-2 | Diethylphthalate | 5.0 | Ü |
| 86-73-7 | Fluorene | 5.0 | U |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 5.0 | U |
| 100-01-6 | 4-Nitroaniline | 10 | Ū |
| 534-52-1 | 4,6-Dinitro-2-methylphenol | 10 | Ü |
| 86-30-6 | N-Nitrosodiphenylamine¹ | 5.0 | U |
| 95-94-3 | 1,2,4,5-Tetrachlorobenzene | 5.0 | U |
| 101-55-3 | 4-Bromophenyl-phenylether | 5.0 | Ü |
| 118-74-1 | Hexachlorobenzene | 5.0 | Ü |
| 1912-24-9 | Atrazine | 5.0 | U |
| 87-86-5 | Pentachlorophenol | 10 | Ū |
| 85-01-8 | Phenanthrene | 5.0 | Ü |
| 120-12-7 | Anthracene | 5.0 | Ü |
| 86-74-8 | Carbazole | 5.0 | Ū |
| 84-74-2 | Di-n-butylphthalate | 5.0 | Ū |
| 206-44-0 | Fluoranthene | 5.0 | U |
| 129-00-0 | Pyrene | 5.0 | Ū |
| 85-68-7 | Butylbenzylphthalate | 5.0 | U |
| 91-94-1 | 3,3'-Dichlorobenzidine · | 5.0 | Ü |
| 56-55-3 | Benzo(a)anthracene | 5.0 | Ü |
| 218-01-9 | Chrysene | 5.0 | U |
| 117-81-7 | Bis(2-ethylhexyl)phthalate | 5,.0 | Ū |
| 117-84-0 | Di-n-octylphthalate | 5.0 | U |
| 205-99-2 | Benzo(b) fluoranthene | 5.0 | Ū |
| 207-08-9 | Benzo(k) fluoranthene | 5.0 | U |
| 50-32-8 | Benzo(a)pyrene | 5.0 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 5.0 | U |
| 53-70-3 | Dibenzo(a,h)anthracene | 5.0 | U |
| 191-24-2 | Benzo(g,h,i)perylene | 5.0 | U |
| 58-90-2 | 2,3,4,6-Tetrachlorophenol | 5.0 | U |

¹Cannot be separated from Diphenylamine

Use this

11 (5/252)

1K - FORM'I SV-TIC

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

| EPA | SAMPLE | NO. |
|-----|--------|-----|
| | J73T9 | |

| Lab Name: DataChem Lab | oratories, Inc. | Contract: EP-W-05-026 |
|------------------------|---------------------------------------|--------------------------------|
| Lab Code: DATAC | Case No.: 35417 Mod. R | Ref No.: SDG No.: <u>J73T9</u> |
| Matrix: (SOIL/SED/WATE | ER) WATER | Lab Sample ID: 06C02709 |
| Sample wt/vol: 1000 | (g/mL) <u>mL</u> | Lab File ID: RNG04C09 |
| Level: (LOW/MED) LOW | · · · · · · · · · · · · · · · · · · · | Extraction: (Type) CONT |
| % Moisture: | Decanted: (Y/N) | Date Received: 06/08/2006 |
| Concentrated Extract V | Volume: 1000 (uL) | Date Extracted: 06/13/2006 |
| Injection Volume: 1.0 | (uL) GPC Factor: | Date Analyzed: 06/19/2006 |
| GPC Cleanup: (Y/N) N | pH: | Dilution Factor: 1.0 |
| | | · · |

CONCENTRATION UNITS: (ug/L or ug/kg) ug/L

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|-------------|-----------------------------|-------------|----------------------------------------|---------------|
| | Unsaturated Hydrocarbon | 4.10 | 18 | JВ |
| | Unsaturated Hydrocarbon | 4.17 | 2.6 | JB |
| 324-60-8 | 1,1 Biphenyl, 2 Tlubre - 1 | 7.73 | 1 | THE T |
| 118-79-6 | Phenol, 2,4,6-tribromo- | 10.25 | 42 | JND |
| 1718-51-0 | p-Terphenyl-d14 | 14.27 | 48 | JNB |
| 100022-00-0 | 6,8-Dodecadien-1-ol (62,82) | 15.28 | 2.3 | JN |
| | Polycyclic hydrocarbon | 18.92 | 10 | JB |
| | Polycyclic hydrocarbon | 24.30 | 11 | JB |
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| | | | | |
| E9667962 | Total Alkanes | N/A | · · · · · · · · · · · · · · · · · · · | |

²EPA-designated Registry Number.

Bl 8/28/00

EPA SAMPLE NO.

| J7 | 3T9RX | |
|----|-------|--|
| | | |

| Lab Name: DataChem Laboratories, Inc. | Contract: EP-W-05-026 |
|------------------------------------------|-----------------------------------|
| Lab Code: DATAC Case No.: 35417 Mod. Ref | No.: SDG No.: <u>J73T9</u> |
| Matrix: (SOIL/SED/WATER) WATER | Lab Sample ID: 06C02709R1 |
| Sample wt/vol: 1000 (g/mL) mL | Lab File ID: RNS09C09 |
| Level: (LOW/MED) LOW | Extraction: (Type) CONT |
| % Moisture: Decanted: (Y/N) N | Date Received: 06/08/2006 |
| Concentrated Extract Volume: 1000 (uL) | Date Extracted: <u>06/23/2006</u> |
| Injection Volume: 1.0 (uL) GPC Factor: | Date Analyzed: 06/26/2006 |
| GPC Cleanup: (Y/N) N pH: | Dilution Factor: 1.0 |
| | CONCENTED DELCON UNITED |

| | | CONCENTRATION UNITS: | |
|----------|------------------------------|----------------------|------|
| CAS NO. | COMPOUND | (ug/L or ug/kg) ug/L | , Q |
| 100-52-7 | Benzaldehyde | 5.0 | U |
| 108-95-2 | Phenol | 5.0 | Ü |
| 111-44-4 | Bis(2-chloroethyl)ether | 5.0 | U |
| 95-57-8 | 2-Chlorophenol | 5.0 | U.S. |
| 95-48-7 | 2-Methylphenol | 5.0 | Ü |
| 108-60-1 | 2,2'-Oxybis(1-chloropropane) | 5.0 | U _ |
| 98-86-2 | Acetophenone | 5.0 | Ū |
| 106-44-5 | 4-Methylphenol | 5.0 | Ü |
| 621-64-7 | N-Nitroso-di-n-propylamine | 5.0 | U |
| 67-72-1 | Hexachloroethane | 5.0 | Ü |
| 98-95-3 | Nitrobenzene | 5.0 | Ū |
| 78-59-1 | Isophorone | 5.0 | Ü |
| 88-75-5 | 2-Nitrophenol | 5.0 | Ü |
| 105-67-9 | 2,4-Dimethylphenol | 5.0 | Ü |
| 111-91-1 | Bis(2-chloroethoxy)methane | 5.0 | Ū |
| 120-83-2 | 2,4-Dichlorophenol | 5.0 | ָ |
| 91-20-3 | Naphthalene | 5.0 | U |
| 106-47-8 | 4-Chloroaniline | 5.0 | Ū |
| ·87-68-3 | Hexachlorobutadiene | 5.0 | Ū |
| 105-60-2 | Caprolactam | 5.0 | Ū |
| 59-50-7 | 4-Chloro-3-methylphenol | 5.0 | Ū |
| 91-57-6 | 2-Methylnaphthalene | 5.0 | U |
| 77-47-4 | Hexachlorocyclopentadiene | 5.0 | U |
| 88-06-2 | 2,4,6-Trichlorophenol | 5.0 | Ū |
| 95-95-4 | 2,4,5-Trichlorophenol | . 5.0 | Ū |
| 92-52-4 | 1,1'-Biphenyl | 5.0 | U |
| 91-58-7 | 2-Chloronaphthalene | 5.0 | Ū |
| 88-74-4 | 2-Nitroaniline | 10 | Ū |
| 131-11-3 | Dimethylphthalate | 5.0 | Ü |
| 606-20-2 | 2,6-Dinitrotoluene | 5.0 | U |
| 208-96-8 | Acenaphthylene | 5.0 | Ü |
| 99-09-2 | 3-Nitroaniline | 10 | Ū |
| 83-32-9 | Acenaphthene | 5.0 | U |

Use first run

BP 8/28/00

EPA SAMPLE NO.

J73T9RX

المراجعة مسمس

| Lab Name: DataChem Laboratories, Inc. | Contract: EP-W-05-026 |
|------------------------------------------|----------------------------|
| Lab Code: DATAC Case No.: 35417 Mod. Ref | No.: SDG No.: J73T9 |
| Matrix: (SOIL/SED/WATER) WATER | Lab Sample ID: 06C02709R1 |
| Sample wt/vol: 1000 (g/mL) mL | Lab File ID: RNS09C09 |
| Level: (LOW/MED) LOW | Extraction: (Type) CONT |
| % Moisture: Decanted: (Y/N) N | Date Received: 06/08/2006 |
| Concentrated Extract Volume: 1000 (uL) | Date Extracted: 06/23/2006 |
| Injection Volume: 1.0 (uL) GPC Factor: | Date Analyzed: 06/26/2006 |
| GPC Cleanup: (Y/N) N pH: | Dilution Factor: 1.0 |

| CAS NO. | COMPOUND | CONCENTRATION UNITS: | Q |
|-----------|-------------------------------------|-----------------------------|--------|
| CAS NO. | COMPOUND | (ug/L or ug/kg) <u>ug/L</u> | , Ų |
| 51-28-5 | 2,4-Dinitrophenol | 10 | Ü |
| 100-02-7 | 4-Nitrophenol | 10 | Ü |
| 132-64-9 | Dibenzofuran | 5.0 | Ū |
| 121-14-2 | 2,4-Dinitrotoluene | 5.0 | Ü |
| 84-66-2 | Diethylphthalate | 5.0 | Ū |
| 86-73-7 | Fluorene | 5.0 | U |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 5.0 | · U |
| 100-01-6 | 4-Nitroaniline | 10 | Ü |
| 534-52-1 | 4,6-Dinitro-2-methylphenol | 10 | Ü |
| 86-30-6 | N-Nitrosodiphenylamine ¹ | 5.0 | Ü |
| 95-94-3 | 1,2,4,5-Tetrachlorobenzene | 5.0 | Ü |
| 101-55-3 | 4-Bromophenyl-phenylether | 5.0 | U |
| 118-74-1 | Hexachlorobenzene | 5.0 | Ü |
| 1912-24-9 | Atrazine | 5.0 | Ü |
| 87-86-5 | Pentachlorophenol | 10 | Ū |
| 85-01-8 | Phenanthrene | 5.0 | Ū |
| 120-12-7 | Anthracene | 5.0 | Ū |
| 86-74-8 | Carbazole | 5.0 | U |
| 84-74-2 | Di-n-butylphthalate | 5.0 | Ū |
| 206-44-0 | Fluoranthene | 5.0 | Ū |
| 129-00-0 | Pyrene | 5.0 | Ü |
| 85-68-7 | Butylbenzylphthalate | 5.0 | U |
| 91-94-1 | 3,3'-Dichlorobenzidine | 5.0 | Ü |
| 56-55-3 | Benzo(a)anthracene | 5.0 | U |
| 218-01-9 | Chrysene | 5.0 | U |
| 117-81-7 | Bis(2-ethylhexyl)phthalate | 5.0 2.2 | ب کلار |
| 117-84-0 | Di-n-octylphthalate | 5.0 | Ü |
| 205-99-2 | Benzo(b) fluoranthene | 5.0 | U |
| 207-08-9 | Benzo(k)fluoranthene | 5.0 | Ū |
| 50-32-8 | Benzo(a)pyrene | 5.0 | Ü |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 5.0 | Ū |
| 53-70-3 | Dibenzo(a,h)anthracene | 5.0 | Ü |
| 191-24-2 | Benzo(g,h,i)perylene | 5.0 | Ü |
| 58-90-2 | 2,3,4,6-Tetrachlorophenol | 5.0 | U |

¹Cannot be separated from Diphenylamine

use first run

10 2/20/00

1K - FORM I SV-TIC

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

| EPA S | AMPLE | NO. |
|-------|-------|-----|
|-------|-------|-----|

J73T9RX

| Lab Name: DataChem Laboratories, Inc. | Contract: EP-W-05-026 |
|--------------------------------------------|----------------------------|
| Lab Code: DATAC Case No.: 35417 Mod. Ref | No.: SDG No.: <u>J73T9</u> |
| Matrix: (SOIL/SED/WATER) WATER | Lab Sample ID: 06C02709R1 |
| Sample wt/vol: 1000 (g/mL) mL | Lab File ID: RNS09C09 |
| Level: (LOW/MED) LOW | Extraction: (Type) CONT |
| % Moisture: Decanted: (Y/N) N | Date Received: 06/08/2006 |
| Concentrated Extract Volume: 1000 (uL) | Date Extracted: 06/23/2006 |
| Injection Volume: 1.0 (uL) GPC Factor: | Date Analyzed: 06/26/2006 |
| GPC Cleanup: (Y/N) N pH: | Dilution Factor: 1.0 |
| CONCENTRATION UNITS (ug/I, or ug/kg) ug/I. | |

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|------------|--------------------------|-------|------------|-----------------|
|)1 | Unknown oxyhydrocarbon | 4.53 | 5.7 | - JB |
|)2 | - Pulycyclic hydrocarbon | 18.87 | 4.8 | JB |
| 3 | | 24.24 | - 5.9 | JB |
|)4 | | | | |
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| 7 | | | | |
| 8 | | | | |
| 9 | | | | |
| 0 | | | | |
| E9667962 | Total Alkanes | N/A | | |

²EPA-designated Registry Number.

130 8/25/06

EPA SAMPLE NO.

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| Lab Name: DataChem Laboratories, Inc. | Contract: EP-W-05-026 |
|----------------------------------------------------------------|----------------------------|
| Lab Code: DATAC Case No.: 35417 Mod. Ref | No.: SDG No.: <u>J73T9</u> |
| Matrix: (SOIL/SED/WATER) SOIL | Lab Sample ID: 06C02710 |
| Sample wt/vol: 30.0 (g/mL) g | Lab File ID: RNJ14C10 |
| Level: (LOW/MED) LOW | Extraction: (Type) SONC |
| % Moisture: $\underline{14}$ Decanted: (Y/N) \underline{N} | Date Received: 06/08/2006 |
| Concentrated Extract Volume: 500 (uL) | Date Extracted: 06/14/2006 |
| Injection Volume: 1.0 (uL) GPC Factor: 2.0 | Date Analyzed: 06/21/2006 |
| GPC Cleanup: (Y/N) Y pH: 6.8 | Dilution Factor: 1.0 |

| CAS NO. | COMPOUND | CONCENTRATION UNITS: | Q |
|------------------|------------------------------|-----------------------|------|
| | CONT GOND | (ug/L or ug/kg) ug/kg | . 2 |
| 100-52-7 | Benzaldehyde | 200 | Ü |
| 108-95-2 | Phenol | . 200 | U |
| 111-44-4 | Bis(2-chloroethyl)ether | 2.0.0 | Ŭ, |
| 95-57-8 | 2-Chlorophenol | 200 | Ü |
| 95-48-7 | 2-Methylphenol | 200 | Ū |
| 108-60-1 | 2,2'-Oxybis(1-chloropropane) | 200 | Ū |
| 98-86-2 | Acetophenone | 200-11 | JBU. |
| 106-44-5 | 4-Methylphenol | 200 | U |
| 621-64-7 | N-Nitroso-di-n-propylamine | 200 | U |
| 67-72-1 | Hexachloroethane | 200 | Ü |
| 98-95-3 | Nitrobenzene | 200 | U |
| 78-59-1 | Isophorone | 200 | Ü |
| 88-75-5 | 2-Nitrophenol | 200 | Ü |
| 105-67-9 | 2,4-Dimethylphenol | 200 | Ü |
| 111-91-1 | Bis(2-chloroethoxy)methane | . 200 | U |
| 120-83-2 | 2,4-Dichlorophenol | 200 | U |
| 91-20-3 | Naphthalene | 200 | · U |
| 106-47-8 | 4-Chloroaniline | 200 | U |
| 87-68 - 3 | Hexachlorobutadiene | 200 | U |
| 105-60-2 | Caprolactam | 200 | U |
| 59-50-7 | 4-Chloro-3-methylphenol | 200 | U |
| 91-57-6 | 2-Methylnaphthalene | 200 | Ü |
| 77-47-4 | Hexachlorocyclopentadiene | 200 | U |
| 88-06-2 | 2,4,6-Trichlorophenol | 200 | U |
| 95-95-4 | 2,4,5-Trichlorophenol | 200 | U |
| 92-52-4 | 1,1'-Biphenyl | 200 | Ū |
| 91-58-7 | 2-Chloronaphthalene | 200 | U |
| 88-74-4 | 2-Nitroaniline | 390 | U |
| 131-11-3 | Dimethylphthalate | 200 | U |
| 606-20-2 | 2,6-Dinitrotoluene | 200 | Ū |
| 208-96-8 | Acenaphthylene | 200 | Ū |
| 99-09-2 | 3-Nitroaniline | 390 | Ū |
| 83-32-9 | Acenaphthene | 200 | Ü |

EPA SAMPLE NO.

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| Lab Name: DataChem Laboratories, Inc. | Contract: EP-W-05-026 |
|--------------------------------------------|----------------------------|
| Lab Code: DATAC Case No.: 35417 Mod. Ref | No.: SDG No.: <u>J73T9</u> |
| Matrix: (SOIL/SED/WATER) SOIL | Lab Sample ID: 06C02710 |
| Sample wt/vol: 30.0 (g/mL) g | Lab File ID: RNJ14C10 |
| Level: (LOW/MED) LOW | Extraction: (Type) SONC |
| % Moisture: 14 Decanted: (Y/N) N | Date Received: 06/08/2006 |
| Concentrated Extract Volume: 500 (uL) | Date Extracted: 06/14/2006 |
| Injection Volume: 1.0 (uL) GPC Factor: 2.0 | Date Analyzed: 06/21/2006 |
| GPC Cleanup: (Y/N) Y pH: 6.8 | Dilution Factor: 1.0 |

| CAS NO. | COMPOUND . | CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg | Q |
|-----------|-------------------------------------|--------------------------------------------|------|
| 51-28-5 | 2,4-Dinitrophenol | 390 | Ü |
| 100-02-7 | 4-Nitrophenol | 390 | Ü |
| 132-64-9 | Dibenzofuran | 200 | Ü |
| 121-14-2 | 2,4-Dinitrotoluene | 200 | Ū |
| 84-66-2 | Diethylphthalate | . 200 | Ū |
| 86-73-7 | Fluorene | . 200 | Ü |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 200 | Ū |
| 100-01-6 | 4-Nitroaniline | 390 | U |
| 534-52-1 | 4,6-Dinitro-2-methylphenol | 390 | Ū |
| 86-30-6 | N-Nitrosodiphenylamine ¹ | 200 | Ü |
| 95-94-3 | 1,2,4,5-Tetrachlorobenzene | 200 | U |
| 101-55-3 | 4-Bromophenyl-phenylether | 200 | Ū |
| 118-74-1 | Hexachlorobenzene | 200 | Ü |
| 1912-24-9 | Atrazine | 200 | U |
| 87-86-5 | Pentachlorophenol | 390 | Ū |
| 85-01-8 | Phenanthrene | 200 | Ū |
| 120-12-7 | Anthracene | 200 | U |
| 86-74-8 | Carbazole | 200 | Ū |
| 84-74-2 | Di-n-butylphthalate | 200 | Ū |
| 206-44-0 | Fluoranthene . | 200 | Ū |
| 129-00-0 | Pyrene | 200 | - Ŋ |
| 85-68-7 | Butylbenzylphthalate | 200 | U |
| 91-94-1 | 3,3'-Dichlorobenzidine | 200 | Ŭ |
| 56-55-3 | Benzo(a)anthracene | 200 | Ū |
| 218-01-9 | Chrysene | 200 | U |
| 117-81-7 | Bis(2-ethylhexyl)phthalate | 2001-280 | JE U |
| 117-84-0 | Di-n-octylphthalate | 200 | Ū |
| 205-99-2 | Benzo(b) fluoranthene | 200 | U |
| 207-08-9 | Benzo(k) fluoranthene | 200 | Ū |
| 50-32-8 | Benzo(a)pyrene | 200 | Ū |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 200 | U |
| 53-70-3 | Dibenzo(a,h)anthracene | 200 | Ü |
| 191-24-2 | Benzo(g,h,i)perylene | 200 | Ü . |
| 58-90-2 | 2,3,4,6-Tetrachlorophenol | 200 | U |

¹Cannot be separated from Diphenylamine

1K - FORM I SV-TIC

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

| EPA | SAMPLE | NO. |
|-----|--------|-----|
|-----|--------|-----|

| Lab Name: DataChem Laboratories, Inc. | Contract: EP-W-05-026 |
|--------------------------------------------|----------------------------------|
| Lab Code: DATAC Case No.: 35417 Mod. Ref | No.: SDG No.: <u>J73T9</u> |
| Matrix: (SOIL/SED/WATER) SOIL | Lab Sample ID: 06C02710 |
| Sample wt/vol: 30.0 (g/mL) g | Lab File ID: RNJ14C10 |
| Level: (LOW/MED) LOW | Extraction: (Type) SONC |
| % Moisture: 14 Decanted: (Y/N) N | Date Received: 06/08/2006 |
| Concentrated Extract Volume: 500 (uL) | Date Extracted: 06/14/2006 |
| Injection Volume: 1.0 (uL) GPC Factor: 2.0 | Date Analyzed: <u>06/21/2006</u> |
| GPC Cleanup: (Y/N) Y pH: 6.8 | Dilution Factor: 1.0 |
| | |

CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg

| | CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|-------|-------------|--------------------------------------------|-------|------------|---------------|
| 01 | | Unsaturated Hydrocarbon | 4.10 | 490 | JB |
| 02 | | Polycyclic hydrocarbon | 18.90 | 120 | J |
| 03 56 | 6881-08=4 | 7-Hydroxy-3- (1,1-dimethylprop-2-enyl)cour | 20.39 | . 38 | JN |
| 04 10 | 00014-97-0 | Ledene oxide-(II) | 23.40 | 79 | JN |
| 05 | | Polycyclic hydrocarbon | 24.31 | 93 | Ĵ |
| 06 | | | | | , |
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| 0 | | | | | |
| E9 | 966796² | Total Alkanes | N/A | | |

²EPA-designated Registry Number.

SOM01.1 (5/2073)

EPA SAMPLE NO.

| Lab Name: DataChem Laboratories, Inc. | Contract: EP-W-05-026 |
|---------------------------------------------------|----------------------------------|
| Lab Code: DATAC Case No.: 35417 Mod. Ref | No.: SDG No.: <u>J73T9</u> |
| Matrix: (SOIL/SED/WATER) WATER | Lab Sample ID: 06C02711 |
| Sample wt/vol: 1000 (g/mL) mL | Lab File ID: RNG05C11 |
| Level: (LOW/MED) LOW | Extraction: (Type) CONT |
| % Moisture: Decanted: (Y/N) | Date Received: 06/08/2006 |
| Concentrated Extract Volume: 1000 (uL) | Date Extracted: 06/13/2006 |
| <pre>Injection Volume: 1.0 (uL) GPC Factor:</pre> | Date Analyzed: <u>06/19/2006</u> |
| GPC Cleanup: (Y/N) N pH: | Dilution Factor: 1.0 |

| | COMPOUND | CONCENTRATION UNITS: | |
|------------|------------------------------|----------------------|-------|
| CAS NO. | | (ug/L or ug/kg) ug/L | Q |
| 100-52-7 | Benzaldehyde | 5.0 | U |
| 108-95-2 | Phenol | 5.0 | Ū |
| 111-44-4 | Bis(2-chloroethyl)ether | 5.0 | U |
| 95-57-8-75 | 2-Chlorophenol | 5.0 | U EFF |
| 95-48-7 | 2-Methylphenol | 5.0 | Ū |
| 108-60-1 | 2,2'-Oxybis(1-chloropropane) | 5.0 | Ü |
| 98-86-2 | Acetophenone | 5.0 | U |
| 106-44-5 | 4-Methylphenol | 5.0 | U |
| 621-64-7 | N-Nitroso-di-n-propylamine | 5.0 | U |
| 67-72-1 | Hexachloroethane | 5.0 | Ü |
| 98-95-3 | Nitrobenzene | 5.0 | Ü |
| 78-59-1 | Isophorone | 5.0 | Ū |
| 88-75-5 | 2-Nitrophenol | 5.0 | Ū |
| 105-67-9 | 2,4-Dimethylphenol | 5.0 | Ū |
| 111-91-1 | Bis(2-chloroethoxy)methane | 5.0 | Ū |
| 120-83-2 | 2,4-Dichlorophenol | 5.0 | Ū |
| 91-20-3 | Naphthalene | 5.0 | Ü |
| 106-47-8 | 4-Chloroaniline | 5.0 | Ū |
| 87-68-3 | Hexachlorobutadiene | 5.0 | Ū |
| 105-60-2 | Caprolactam | 5.0 | Ū |
| 59-50-7 | 4-Chloro-3-methylphenol | 5.0 | Ū |
| 91-57-6 | 2-Methylnaphthalene | 5.0 | U |
| 77-47-4 | Hexachlorocyclopentadiene | 5.0 | Ū |
| 88-06-2 | 2,4,6-Trichlorophenol | 5.0 | U |
| 95-95-4 | 2,4,5-Trichlorophenol | 5.0 | U |
| 92-52-4 | 1,1'-Biphenyl | 5.0 | U |
| 91-58-7 | 2-Chloronaphthalene | 5.0 | U |
| 88-74-4 | 2-Nitroaniline | 10 | Ū |
| 131-11-3 | Dimethylphthalate | 5.0 | U |
| 606-20-2 | 2,6-Dinitrotoluene | 5.0 | U |
| 208-96-8 | Acenaphthylene | 5.0 | U |
| 99-09-2 | 3-Nitroaniline | 10 | U |
| 83-32-9 | Acenaphthene | 5.0 | U |

use this run

B/8/26/06

EPA SAMPLE NO.

| J7 | 3W1 | |
|----|-----|--|

| Lab Name: DataChem Laboratories, Inc. | Contract: EP-W-05-026 |
|------------------------------------------|----------------------------|
| Lab Code: DATAC Case No.: 35417 Mod. Ref | No.: SDG No.: <u>J73T9</u> |
| Matrix: (SOIL/SED/WATER) WATER | Lab Sample ID: 06C02711 |
| Sample wt/vol: 1000 (g/mL) mL | Lab File ID: RNG05C11 |
| Level: (LOW/MED) LOW | Extraction: (Type) CONT |
| % Moisture: Decanted: (Y/N) | Date Received: 06/08/2006 |
| Concentrated Extract Volume: 1000 (uL) | Date Extracted: 06/13/2006 |
| Injection Volume: 1.0 (uL) GPC Factor: | Date Analyzed: 06/19/2006 |
| GPC Cleanup: (Y/N) N pH: | Dilution Factor: 1.0 |

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/kg) ug/L | Q |
|-------------------|-------------------------------------|-------------------------------------------|-----|
| 51-28-5 | 2,4-Dinitrophenol | 10 | Ū |
| 100-02-7 | 4-Nitrophenol | 10 | U |
| 132-64-9 | Dibenzofuran | 50 | U |
| 121-14-2 | 2,4-Dinitrotoluene | 5.0 | · U |
| 84-66-2 | Diethylphthalate | . 0.23 | JQ |
| 86-73-7 | Fluorene | 5.0 | Ū |
| 7005-72-3 | 4-Chlorophenyl-phenylether | . 5.0 | U |
| 100-01-6 | 4-Nitroaniline | 10 | U |
| 534-52-1 | 4,6-Dinitro-2-methylphenol | 10 | U |
| 86-30-6 | N-Nitrosodiphenylamine ¹ | 5.0 | Ū |
| 95-94-3 | 1,2,4,5-Tetrachlorobenzene | 5.0 | Ū |
| 101-55 - 3 | 4-Bromophenyl-phenylether | 5.0 | Ü |
| 118-74-1 | Hexachlorobenzene | 5.0 | Ū |
| 1912-24-9 | Atrazine | 5.0 | Ū |
| 87-86-5 | Pentachlorophenol | 10 | Ū |
| 85-01-8 | Phenanthrene | 5.0 | U |
| 120-12-7 | Anthracene | 5.0 | Ü |
| 86-74-8 | Carbazole | 5.0 | Ū |
| 84-74-2 | Di-n-butylphthalate | 0.48 | JQ |
| 206-44-0 | Fluoranthene | 5.0 | U |
| 129-00-0 | Pyrene | 5.0 | U |
| 85-68-7 | Butylbenzylphthalate | 0.59 | JQ |
| 91-94-1 | 3,3'-Dichlorobenzidine | 5.0 | U |
| 56-55 - 3 | Benzo(a) anthracene | 5.0 | U |
| 218-01-9 | Chrysene | 5.0 | Ü |
| 117-81-7 | Bis(2-ethylhexyl)phthalate | 5.0 2-68 | JBU |
| 117-84-0 | Di-n-octylphthalate | 5.0 | U |
| 205-99-2 | Benzo(b) fluoranthene | 5.0 | U |
| 207-08-9 | Benzo(k)fluoranthene | 5.0 | Ū |
| 50-32-8 | Benzo(a)pyrene | 5.0 | Ū |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 5.0 | Ū |
| 53-70-3 | Dibenzo(a,h)anthracene | 5.0 | Ü |
| 191-24-2 | Benzo(g,h,i)perylene | , 5.0 | υ |
| 58-90-2 | 2,3,4,6-Tetrachlorophenol | 5.0 | Ū |

¹Cannot be separated from Diphenylamine

use eint 8 8/28/09 SOM01.1 (5/22/88)

1K - FORM I SV-TIC

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

J73W1

| | Lab Name: Data | Chem Laboratories, Inc. | | Contract | : <u>EP-W</u> - | -05-026 | | |
|------------|----------------|---------------------------------------|-------------|------------|-----------------|---------------------|------|-------------|
| | Lab Code: DATA | C Case No.: 35417 Mod | d. Ref | No.: | | SDG No.: J7 | 3T9 | |
| | Matrix: (SOIL/ | SED/WATER) WATER | | Lab Samp | ole ID: | 06C02711 | | |
| | Sample wt/vol: | 1000 (g/mL) <u>mL</u> | | Lab File | ≥ ID: <u>R1</u> | WG05C11 | | |
| | Level: (LOW/ME | D) LOW | | Extract | ion: (T | ype) <u>CONT</u> | | |
| | % Moisture: | Decanted: (Y/N) | | Date Red | ceived: | 06/08/2006 | 1 | |
| | | xtract Volume: 1000 (| | | | | | |
| | Injection Volu | me: 1.0 (uL) GPC Factor: | | Date | Analyz | ed: <u>06/19/20</u> | 06 | |
| | GPC Cleanup: (| Y/N) <u>N</u> pH: | | Dilution | n Facto: | r: 1.0 | | |
| | | | | | | | _ B | lox |
| | CONCENTRATION | UNITS: (ug/L or ug/kg) ug/L | | | | | 81 | 22/00 |
| | CAS NUMBER | COMPOUND NAME | | | RT | EST. CON | с | Q |
| 01 | | Unsaturated Hydrocarbon | | | 4.10 | | 24 | JB |
| 02 | | Unsaturated Hydrocarbon | | <u>·</u> _ | 4.16 | | 3.9. | JB · |
| 03 | | 1,1'-Biphenyl, 2-fluore | • | •••• | | 3 | | JNB)~ |
| 04 | | Phenol, 2,4,6-tribromo- | • | | 10.24 | | 49 | JNB |
| | 1718-51-0 | p-TerphenyI-d14 | | | 14.28 | | 61 | JNB |
| 06 | | Połycyclic hydrocarbon | | | 18.91 | | 8.5 | JB |
| 07 | | Polycyclic hydrocarbon | | | 24.30 | | 9.1 | JB |
| 082 | | | | | | | | |
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| 30 | | | · | | | | | |
| J (| E9667962 | Total Alkanes | | | N/A | | | |

²EPA-designated Registry Number.

EPA SAMPLE NO.

| Lab Name: DataChem Laboratories, Inc. | Contract: EP-W-05-026 |
|------------------------------------------|----------------------------|
| Lab Code: DATAC Case No.: 35417 Mod. Ref | No.: SDG No.: J73T9 |
| Matrix: (SOIL/SED/WATER) WATER | Lab Sample ID: 06C02711R1 |
| Sample wt/vol: 1000 (g/mL) mL | Lab File ID: RNS10C11 |
| Level: (LOW/MED) LOW | Extraction: (Type) CONT |
| % Moisture: Decanted: (Y/N) N | Date Received: 06/08/2006 |
| Concentrated Extract Volume: 1000 (uL) | Date Extracted: 06/23/2006 |
| Injection Volume: 1.0 (uL) GPC Factor: | Date Analyzed: 06/26/2006 |
| GPC Cleanup: (Y/N) N pH: | Dilution Factor: 1.0 |

| 62.6.326 | COMPOUND | CONCENTRATION UNITS: | _ · |
|------------------|------------------------------|----------------------|-----|
| CAS NO. | | (ug/L or ug/kg) ug/L | Q |
| 100-52-7 | Benzaldehyde | 5.0 | Ū |
| 108-95-2 | Phenol | 5.0 | Ū |
| 111-44-4 | Bis(2-chloroethyl)ether | 50 | Ū , |
| 95-57-8 | 2-Chiorophenol | 5.0 | Ų |
| 95-48-7 | 2-Methylphenol | 5.0 | Ū |
| 108-60-1 | 2,2'-Oxybis(1-chloropropane) | 5.0 | Ū |
| 98-86-2 | Acetophenone | 5.0 | Ū |
| 106-44-5 | 4-Methylphenol | 5.0 | Ū |
| 621-64-7 | N-Nitroso-di-n-propylamine | . 5.0 | U |
| 67-72-1 | Hexachloroethane | 5.0 | U |
| 98-95 - 3 | Nitrobenzene | 5.0 | Ü |
| 78-59-1 | Isophorone | 5.0 | Ū |
| 88-75-5 | 2-Nitrophenol | 5.0 | Ū |
| 105-67-9 | 2,4-Dimethylphenol | 5.0 | Ū |
| 111-91-1 | Bis(2-chloroethoxy)methane | 5.0 | Ū |
| 120-83-2 | 2,4-Dichlorophenol | 5.0 | U |
| 91-20-3 | Naphthalene | 5.0 | Ū |
| 106-47-8 | 4-Chloroaniline | 5.0 | Ü |
| 87-68-3 | Hexachlorobutadiene | 5.0 | Ū |
| 105-60-2 | Caprolactam | 5.0 | Ü |
| 59-50-7 | 4-Chloro-3-methylphenol | 5.0 | U |
| 91-57-6 | 2-Methylnaphthalene | 5.0 | U |
| 77-47-4 | Hexachlorocyclopentadiene | 5.0 | U |
| 88-06-2 | 2,4,6-Trichlorophenol | 5.0 | U |
| 95-95-4 | 2,4,5-Trichlorophenol | 5.0 | Ū· |
| 92-52-4 | 1,1'-Biphenyl | 5.0 | U |
| 91-58-7 | 2-Chloronaphthalene | 5.0 | Ū |
| 88-74-4 | 2-Nitroaniline | 10 | U |
| 131-11-3 | Dimethylphthalate | 5.0 | Ü |
| 606-20-2 | 2,6-Dinitrotoluene | 5.0 | Ū |
| 208-96-8 | Acenaphthylene | 5.0 | Ū |
| 99-09-2 | 3-Nitroaniline | 10 | U |
| 83-32-9 | Acenaphthene | 5.0 | Ū |

Use first run

8/28/CF

EPA SAMPLE NO.

| Lab Name: DataChem Laboratories, Inc. | Contract: EP-W-05-026 |
|------------------------------------------|----------------------------------|
| Lab Code: DATAC Case No.: 35417 Mod. Ref | No.: SDG No.: <u>J73T9</u> |
| Matrix: (SOIL/SED/WATER) WATER | Lab Sample ID: 06C02711R1 |
| Sample wt/vol: 1000 (g/mL) mL | Lab File ID: RNS10C11 . |
| Level: (LOW/MED) LOW | Extraction: (Type) CONT |
| % Moisture: Decanted: (Y/N) N | Date Received: 06/08/2006 |
| Concentrated Extract Volume: 1000 (uL) | Date Extracted: 06/23/2006 |
| Injection Volume: 1.0 (uL) GPC Factor: | Date Analyzed: <u>06/26/2006</u> |
| GPC Cleanup: (Y/N) N pH: | Dilution Factor: 1.0 |

| CAS NO. | COMPOUND | CONCENTRATION UNITS: | Q |
|-----------|-------------------------------------|----------------------|-----|
| | | (ug/L or ug/kg) ug/L | |
| 51-28-5 | 2,4-Dinitrophenol | 10 | Ω |
| 100-02-7 | 4-Nitrophenol | 10 | |
| 132-64-9 | Dibenzofuran | 5.0 | Ų |
| 121-14-2 | 2,4-Dinitrotoluene | 3.0 | Ū |
| 84-66-2 | Diethylphthalate | 5.0 | Ū |
| 86-73-7 | Fluorene | 5.0 | U |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 5.0 | U |
| 100-01-6 | 4-Nitroaniline | 10 | U |
| 534~52-1 | 4,6-Dinitro-2-methylphenol | 10 | U |
| 86-30-6 | N-Nitrosodiphenylamine ¹ | 5.0 | U |
| 95-94-3 | 1,2,4,5-Tetrachlorobenzene | 5.0 | Ū |
| 101-55-3 | 4-Bromophenyl-phenylether | 5.0 | U |
| 118-74-1 | Hexachlorobenzene | 5.0 | Ü |
| 1912-24-9 | Atrazine | 5.0 | U |
| 87-86-5 | Pentachlorophenol | 10 | Ū |
| 85-01-8 | Phenanthrene | 5.0 | Ū |
| 120~12-7 | Anthracene | 5.0 | U |
| 86-74-8 | Carbazole | 5.0 | Ū |
| 84-74-2 | Di-n-butylphthalate | 5.0 | U |
| 206-44-0 | Fluoranthene | 5.0 | U |
| 129-00-0 | Pyrene | 5.0 | U |
| 85-68-7 | Butylbenzylphthalate | 5.0 | Ü |
| 91-94-1 | 3,3'-Dichlorobenzidine | 5.0 | Ū |
| 56-55-3 | Benzo(a)anthracene | 5.0 | U |
| 218-01-9 | Chrysene | . 5.0 | U |
| 117-81-7 | Bis(2-ethylhexyl)phthalate | 5.0 .2.2 | ZBU |
| 117-84-0 | Di-n-octylphthalate | 5.0 | U |
| 205-99-2 | Benzo(b) fluoranthene | 5.0 | Ū |
| 207-08-9 | Benzo(k) fluoranthene | 5.0 | U |
| 50-32-8 | Benzo(a)pyrene | 5.0 | Ū |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 5.0 | U |
| 53-70-3 | Dibenzo(a,h)anthracene | 5.0 | Ū |
| 191-24-2 | Benzo(g,h,i)perylene | 5.0 | υ |
| 58-90-2 | 2,3,4,6-Tetrachlorophenol | 5.0 | Ū |

¹Cannot be separated from Diphenylamine

use first run

1K - FORM I SV-TIC

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

J73W1RX

| Lab Name: Dat | aChem Laboratories, Inc. | Contract | : <u>EP-W-</u> | 05-026 | | |
|---------------|-----------------------------------|--------------|----------------|---------------------------------------|---------------|---------------------------------------|
| Lab Code: DAT | AC Case No.: <u>35417</u> Mod. Re | ef No.: | | SDG No.: <u>J73T9</u> | | |
| Matrix: (SOIL | /SED/WATER) WATER | Lab Samp | le ID: | 06C02711R1 | | |
| | : 1000 (g/mL) mL | | | S10C11 | | |
| Level: (LOW/M | | | | pe) CONT | | |
| % Moisture: | Decanted: (Y/N) N | | | | | |
| | Extract Volume: 1000 (uL) | | | | | |
| | ume: 1.0 (uL) GPC Factor: | | | | | |
| | (Y/N) N pH: | | | | | |
| oro oroanap. | | 2114010 | 140001 | | | |
| CONCENTRATION | UNITS: (ug/L or ug/kg) ug/L | | | | | ·BP8 |
| CAS NUMBER | COMPOUND NAME | | RT | EST. CONC | | Q |
| | Unknown oxyhydrocarbon | | 4.53 | | 11 | JB |
| | Polycyclic hydrocarbon | | 18.88 | | 20 | JВ |
| · | Polycyclic hydrocarbon | | 24.24 | | 25 | JB"." |
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| E9667962 | Total Alkanes | } | N/A | | - 1 | 1 |

²EPA-designated Registry Number.

4) 8/25/04

SOM01.1 (5/**304**)

EPA SAMPLE NO.

| Lab Name: DataChem Laboratories, Inc. | Contract: EP-W-05-026 |
|--------------------------------------------|----------------------------|
| Lab Code: DATAC Case No.: 35417 Mod. Ref | No.: SDG No.: <u>J73T9</u> |
| Matrix: (SOIL/SED/WATER) SOIL | Lab Sample ID: 06C02712 |
| Sample wt/vol: 30.0 (g/mL) g | Lab File ID: RNJ15C12 |
| Level: (LOW/MED) LOW | Extraction: (Type) SONC |
| % Moisture: 25 Decanted: (Y/N) N | Date Received: 06/08/2006 |
| Concentrated Extract Volume: 500 (uL) | Date Extracted: 06/14/2006 |
| Injection Volume: 1.0 (uL) GPC Factor: 2.0 | Date Analyzed: 06/21/2006 |
| GPC Cleanup: (Y/N) Y pH: 7.1 | Dilution Factor: 1.0 |

| CAS NO. | COMPOUND | CONCENTRATION UNITS: | |
|----------|------------------------------|-----------------------|-----|
| CAS NO. | COMPOUND | (ug/L or ug/kg) ug/kg | Q |
| 100-52-7 | Benzaldehyde | 230 | Ū |
| 108-95-2 | Phenol | 230 | Ü |
| 111-44-4 | Bis(2-chloroethyl)ether | 230 | U |
| 95-57-8: | 2-Chlorophenol | 230 | ប្រ |
| 95-48-7 | 2-Methylphenol | 230 | Ū |
| 108-60-1 | 2,2'-Oxybis(1-chloropropane) | 230 | U |
| 98-86-2 | Acetophenone | 230 | Ü |
| 106-44-5 | 4-Methylphenol | 230 | Ū |
| 621-64-7 | N-Nitroso-di-n-propylamine | 230 | Ü |
| 67-72-1 | Hexachloroethane | . 230 | Ū |
| 98-95-3 | Nitrobenzene | 230 | Ü |
| 78-59-1 | Isophorone | , 230 | Ū |
| 88-75-5 | 2-Nitrophenol | 230 | Ū |
| 105-67-9 | 2,4-Dimethylphenol | 230 | Ū |
| 111-91-1 | Bis(2-chloroethoxy)methane | 230 | U |
| 120-83-2 | 2,4-Dichlorophenol | 230 | U |
| 91-20-3 | Naphthalene | 230 | Ū |
| 106-47-8 | 4-Chloroaniline | 230 | U |
| 87-68-3 | Hexachlorobutadiene | 230 | U |
| 105-60-2 | Caprolactam | 110 | JQ |
| 59-50-7 | 4-Chloro-3-methylphenol | 230 | . Ü |
| 91-57-6 | 2-Methylnaphthalene | 230 | Ū |
| 77-47-4 | Hexachlorocyclopentadiene | 230 | U |
| 88-06-2 | 2,4,6-Trichlorophenol | . 230 | Ū |
| 95-95-4 | 2,4,5-Trichlorophenol | · 230 | Ū |
| 92-52-4 | 1,1'-Biphenyl | 230 | U |
| 91-58-7 | 2-Chloronaphthalene | 230 | Ū |
| 88-74-4 | 2-Nitroaniline | 440 | Ū |
| 131-11-3 | Dimethylphthalate | 230 | υ |
| 606-20-2 | 2,6-Dinitrotoluene | 230 | Ū |
| 208-96-8 | Acenaphthylene | 230 | Ū |
| 99-09-2 | 3-Nitroaniline | . 440 | Ū |
| 83-32-9 | Acenaphthene | 230 | Ū |

EPA SAMPLE NO.

| J7 | 3W2 | |
|----|-----|--|

| Lab Name: DataChem Laboratories, Inc. | Contract: EP-W-05-026 |
|--------------------------------------------|--------------------------------|
| Lab Code: DATAC Case No.: 35417 Mod. Ref | No.: SDG No.: <u>J73T9</u> |
| Matrix: (SOIL/SED/WATER) SOIL | Lab Sample ID: <u>06C02712</u> |
| Sample wt/vol: 30.0 (g/mL) g | Lab File ID: RNJ15C12 |
| Level: (LOW/MED) LOW | Extraction: (Type) SONC |
| % Moisture: 25 Decanted: (Y/N) N | Date Received: 06/08/2006 |
| Concentrated Extract Volume: 500 (uL) | Date Extracted: 06/14/2006 |
| Injection Volume: 1.0 (uL) GPC Factor: 2.0 | Date Analyzed: 06/21/2006 |
| GPC Cleanup: (Y/N) Y pH: 7.1 | Dilution Factor: 1.0 |

| | | CONCENTRATION UNITS: | |
|-----------|-------------------------------------|-----------------------|------|
| CAS NO. | COMPOUND | (ug/L or ug/kg) ug/kg | Q |
| 51-28-5 | 2,4-Dinitrophenol | 440 | U |
| 100-02-7 | 4-Nitrophenol | 440 | Ū |
| 132-64-9 | Dibenzofuran | 230. | Ü |
| 121-14-2 | 2,4-Dinitrotoluene | 230 | U |
| 84-66-2 | Diethylphthalate | 230 | Ū |
| 86-73-7 | Fluorene | 230 | Ū |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 230 | Ü |
| 100-01-6 | 4-Nitroaniline | 440 | Ü |
| 534-52-1 | 4,6-Dinitro-2-methylphenol | 440 | Ŭ |
| 86-30-6 | N-Nitrosodiphenylamine ¹ | 230 | U |
| 95-94-3 | 1,2,4,5-Tetrachlorobenzene | 230 | U |
| 101-55-3 | 4-Bromophenyl-phenylether | 230 | Ū |
| 118-74-1 | Hexachlorobenzene | 230 | Ü |
| 1912-24-9 | Atrazine | 230 | U |
| 87-86-5 | Pentachlorophenol | 440 | Ū |
| 85-01-8 | Phenanthrene | . 230 | U |
| 120-12-7 | Anthracene | 230 | Ü |
| 86-74-8 | Carbazole | 230 | Ū |
| 84-74-2 | Di-n-butylphthalate | 230 | Ū |
| 206-44-0 | Fluoranthene | 230 | U |
| 129-00-0 | Pyrene | 230 | Ū |
| 85-68-7 | Butylbenzylphthalate | 230 | Ū |
| 91-94-1 | 3,3'-Dichlorobenzidine | 230 | Ū |
| 56-55-3 | Benzo(a)anthracene | 230 | Ū |
| 218-01-9 | Chrysene | 230 | Ū |
| 117-81-7 | Bis(2-ethylhexyl)phthalate | 230 110 | ⁄38u |
| 117-84-0 | Di-n-octylphthalate | 230 | Ü |
| 205-99-2 | Benzo(b) fluoranthene | 230 | Ū |
| 207-08-9 | Benzo(k) fluoranthene | 230 | Ū |
| 50-32-8 | Benzo(a)pyrene | . 230 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 230 | Ū |
| 53-70-3 | Dibenzo(a,h)anthracene | . 230 | Ū |
| 191-24-2 | Benzo(g,h,i)perylene | 230 | Ū |
| 58-90-2 | 2,3,4,6-Tetrachlorophenol | 230 | Ü |

¹Cannot be separated from Diphenylamine

TENTATIVELY IDENTIFIED COMPOUNDS

| EPA | SAMPLE | NO. | |
|-----|--------|-----|--|
| | .T73W2 | | |

| Lab Name: DataChem Laboratories, Inc. | Contract: EP-W-05-026 |
|--------------------------------------------|----------------------------|
| Lab Code: DATAC Case No.: 35417 Mod. Ref | No.: SDG No.: <u>J73T9</u> |
| Matrix: (SOIL/SED/WATER) SOIL | Lab Sample ID: 06C02712 |
| Sample wt/vol: 30.0 (g/mL) g | Lab File ID: RNJ15C12 |
| Level: (LOW/MED) LOW | Extraction: (Type) SONC |
| % Moisture: 25 Decanted: (Y/N) N. | Date Received: 06/08/2006 |
| Concentrated Extract Volume: 500 (uL) | Date Extracted: 06/14/2006 |
| Injection Volume: 1.0 (uL) GPC Factor: 2.0 | Date Analyzed: 06/21/2006 |
| GPC Cleanup: (Y/N) Y pH: 7.1 | Dilution Factor: 1.0 |
| | • |

CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg

| CAS NUMBER | COMPOUND NAME | RT | EST. | CONC. | | Q |
|---------------------------------------|------------------------|-------|----------|---------------------------------------|-----|-----|
| - | Polycyclic hydrocarbon | 18.92 | | · · · · · · · · · · · · · · · · · · · | 180 | J |
| | Polycyclic hydrocarbon | 24.28 | | | 140 | J |
| we same | - | | | ٠., | | *** |
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| E9667962 | Total Alkanes | N/A | | | | |

²EPA-designated Registry Number.

the/28/04

EPA SAMPLE NO.

| J73W3 | | |
|-------|--|--|

| Lab Name: DataChem Laboratories, Inc. | Contract: EP-W-05-026 |
|------------------------------------------------------------------|----------------------------------|
| Lab Code: DATAC Case No.: 35417 Mod. Ref | No.: SDG No.: <u>J73T9</u> |
| Matrix: (SOIL/SED/WATER) WATER | Lab Sample ID: 06C02713 |
| Sample wt/vol: $\underline{1000}$ (g/mL) $\underline{\text{mL}}$ | Lab File ID: RNG06C13 |
| Level: (LOW/MED) LOW | Extraction: (Type) CONT |
| % Moisture: Decanted: (Y/N) | Date Received: 06/08/2006 |
| Concentrated Extract Volume: 1000 (uL) | Date Extracted: 06/13/2006 |
| Injection Volume: 1.0 (uL) GPC Factor: | Date Analyzed: <u>06/19/2006</u> |
| GPC Cleanup: (Y/N) N pH: | Dilution Factor: 1.0 |

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/kg) ug/L | Q |
|----------|------------------------------|-------------------------------------------|-----|
| 100-52-7 | Benzaldehyde | 5.0 | Ū |
| 108-95-2 | Phenol | 5.0 | U |
| 111-44-4 | Bis(2-chloroethyl)ether | 5.0 | Ū |
| 95-57-8 | 2-Chlorophenol | 5.0 | Ü |
| 95-48-7 | 2-Methylphenol | 5.0 | Ū |
| 108-60-1 | 2,2'-Oxybis(1-chloropropane) | 5.0 | Ū |
| 98-86-2 | Acetophenone | 5.0 | Ū |
| 106-44-5 | 4-Methylphenol | 5.0 | Ū |
| 621-64-7 | N-Nitroso-di-n-propylamine | 5.0 | Ū |
| 67-72-1 | Hexachloroethane | 5.0 | Ū |
| 98-95-3 | Nitrobenzene | 5.0 | Ū |
| 78-59-1 | Isophorone | 5.0 | Ū |
| 88-75-5 | 2-Nitrophenol | 5.0 | Ü |
| 105-67-9 | 2,4-Dimethylphenol | 5.0 | U |
| 111-91-1 | Bis(2-chloroethoxy)methane | 5.0 | Ū |
| 120-83-2 | 2,4-Dichlorophenol | 5.0 | Ū |
| 91-20-3 | Naphthalene | 5.0 | Ū |
| 106-47-8 | 4-Chloroaniline | 5.0 | Ū |
| 87-68-3 | Hexachlorobutadiene | 5.0 | Ū |
| 105-60-2 | Caprolactam | 5.0 | U |
| 59-50-7 | 4-Chloro-3-methylphenol | 5.0 | Ü |
| 91-57-6 | 2-Methylnaphthalene | 5.0 | U |
| 77-47-4 | Hexachlorocyclopentadiene | 5.0 | U |
| 88-06-2 | 2,4,6-Trichlorophenol | 5.0 | Ū |
| 95-95-4 | 2,4,5-Trichlorophenol | 5.0 | , U |
| 92-52-4 | 1,1'-Biphenyl | 5.0 | U |
| 91-58-7 | 2-Chloronaphthalene | 5.0 | Ū |
| 88-74-4 | 2-Nitroaniline | 10 | Ū |
| 131-11-3 | Dimethylphthalate | 5.0 | Ū |
| 606-20-2 | 2,6-Dinitrotoluene | 5.0 | Ū |
| 208-96-8 | Acenaphthylene | 5.0 | Ū |
| 99-09-2 | 3-Nitroaniline | 10 | U |
| 83-32-9 | Acenaphthene | 5.0 | Ü |

Use this run

18/20/00

EPA SAMPLE NO.

| Lab Name: DataChem Laboratories, Inc. | Contract: EP-W-05-026 |
|------------------------------------------------------------------|-----------------------------------|
| Lab Code: DATAC Case No.: 35417 Mod. Ref | No.: SDG No.: <u>J73T9</u> |
| Matrix: (SOIL/SED/WATER) WATER | Lab Sample ID: <u>06C02713</u> |
| Sample wt/vol: $\underline{1000}$ (g/mL) $\underline{\text{mL}}$ | Lab File ID: RNG06C13 |
| Level: (LOW/MED) LOW | Extraction: (Type) CONT |
| % Moisture: Decanted: (Y/N) | Date Received: <u>06/08/2006</u> |
| Concentrated Extract Volume: 1000 (uL) | Date Extracted: <u>06/13/2006</u> |
| Injection Volume: 1.0 (uL) GPC Factor: | Date Analyzed: <u>06/19/2006</u> |
| GPC Cleanup: (Y/N) N pH: | Dilution Factor: 1.0 |

| CAS NO. | COMPOUND | CONCENTRATION UNITS: | 0 |
|-----------|----------------------------|----------------------|-----|
| | 00.11 00.15 | (ug/L or ug/kg) ug/L | v |
| 51-28-5 | 2,4-Dinitrophenol | 10 | ט |
| 100-02-7 | 4-Nitrophenol | 10 | U |
| 132-64-9 | Dibenzofuran | 5.0 | Ü |
| 121-14-2 | 2,4-Dinitrotoluene | 5.0 | Ū |
| 84-66-2 | Diethylphthalate | 5.0 | U |
| 86-73-7 | Fluorene | 5.0 | U |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 5.0 | Ū |
| 100-01-6 | 4-Nitroaniline | 10 | U |
| 534-52-1 | 4,6-Dinitro-2-methylphenol | 10 | Ü |
| 86-30-6 | N-Nitrosodiphenylamine¹ | 5.0 | U |
| 95-94-3 | 1,2,4,5-Tetrachlorobenzene | 5.0 | Ü |
| 101-55-3 | 4-Bromophenyl-phenylether | 5.0 | Ų |
| 118-74-1 | Hexachlorobenzene | 5.0 | U |
| 1912-24-9 | Atrazine | 5.0 | U |
| 87-86-5 | Pentachlorophenol | . 10 | Ü |
| 85-01-8 | Phenanthrene | 5.0 | Ü |
| 120-12-7 | Anthracene | . 5.0 | Ü |
| 86-74-8 | Carbazole | 5.0 | U |
| 84-74-2 | Di-n-butylphthalate | 0.57 | JQ |
| 206-44-0 | Fluoranthene | 5.0 | Ū |
| 129-00-0 | Pyrene | 5.0 | U |
| 85-68-7 | Butylbenzylphthalate | 3.1 | JQ |
| 91-94-1 | 3,3'-Dichlorobenzidine | 5.0 | Ü |
| 56-55-3 | Benzo(a)anthracene | 5.0 | U |
| 218-01-9 | Chrysene | 5.0 | Ū |
| 117-81-7 | Bis(2-ethylhexyl)phthalate | 5.0 0.86 | JBU |
| 117-84-0 | Di-n-octylphthalate | 5.0 | Ü |
| 205-99-2 | Benzo(b) fluoranthene | 5.0 | U |
| 207-08-9 | Benzo(k) fluoranthene | 5.0 | U |
| 50-32-8 | Benzo(a)pyrene | 5.0 | Ü |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 5.0 | U |
| 53-70-3 | Dibenzo(a,h)anthracene | 5.0 | Ü |
| 191-24-2 | Benzo(g,h,i)perylene | 5.0 | Ū |
| 58-90-2 | 2,3,4,6-Tetrachlorophenol | 5.0 | Ū |

^{2,3,4,6-}Tetrachlorophenol
Cannot be separated from Diphenylamine

use this run

1K - FORM I SV-TIC

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

| EPA | SAMPLE | NO. |
|-----|--------|-----|
| | | |

| J73W3 | |
|-------|--|
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|----------|-----------------------|-----------------------------|---------|--------------|-----------------------|--------|------|
| | | Chem Laboratories, Inc. | | | | | |
| | Lab Code: <u>DATA</u> | .C Case No.: 35417 Mod. Re | f No.: | | SDG No.: <u>J73T9</u> | | |
| | Matrix: (SOIL/ | /SED/WATER) <u>WATER</u> | Lab Sam | mple ID: | 06C02713 | | |
| | Sample wt/vol: | : 1000 (g/mL) <u>mL</u> | Lab Fil | e ID: RNO | G06C13 | | |
| | Level: (LOW/ME | ED) LOW | Extract | ion: (Ty | pe) CONT | | |
| | % Moisture: | Decanted: (Y/N) | Date Re | ceived: | 06/08/2006 | | |
| | | Extract Volume: 1000(uL) | | | | | |
| | | ume: 1.0 (uL) GPC Factor: | | | | | |
| | | (Y/N) N pH: | | | | | |
| | ore ereamap. | (1714) <u>1</u> | DITUCIO | n ractor | . 1.0 | 20 | |
| | CONCENTRATION | UNITS: (ug/L or ug/kg) ug/L | | | _ | - Blzz | 100 |
| | CAS NUMBER | COMPOUND NAME | | RT | EST. CONC. | Q | |
| 01 | | Unsaturated Hydrocarbon | | 4.10 | 19 | JB | • |
| 02 | | Unsaturated Hydrocarbon | | 4.16 | 2.8 | JB | |
| 03 | | 1;1'-Eiphenyl, 2-fluoro- | | 7.72 | 78 | JNB | 1.82 |
| 04 | 118-79-6 | Phenol, 2,4,6-tribromo- | | 10.24 | 50 | JNB | |
| 05 | 1718-51-0 | p-Terphenyl-d14 | | 14.28 | 48 | JNB | |
| 06 | | Polycyclic hydrocarbon | | 18.91 | 4.2 | JB | |
| 07 08 | <u> </u> | Polycyclic hydrocarbon | | 24.31 | 4./ | JB | |
| 09 | | | | | | | |
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| 28 | | | | | | | |
| 29 | | | | | | | |
| 30 | E9667962 | Total Alkanes | | N/A | | | |
| | ■ 5.200720 ~ | I IULAI AIKANES | | i N/Al | | | |

²EPA-designated Registry Number.

50M01.1 (5/2023)

EPA SAMPLE NO.

| J73W3RX | |
|-----------------|--|
| 0 / 0 / 0 1 4 1 | |

| Lab Name: DataChem Laboratories, Inc. | Contract: EP-W-05-026 |
|------------------------------------------|----------------------------|
| Lab Code: DATAC Case No.: 35417 Mod. Ref | No.: SDG No.: <u>J73T9</u> |
| Matrix: (SOIL/SED/WATER) WATER | Lab Sample ID: 06C02713R1 |
| Sample wt/vol: 1000 (g/mL) mL | Lab File ID: RNS06C13 |
| Level: (LOW/MED) LOW . | Extraction: (Type) CONT |
| % Moisture: Decanted: (Y/N) N | Date Received: 06/08/2006 |
| Concentrated Extract Volume: 1000 (uL) | Date Extracted: 06/20/2006 |
| Injection Volume: 1.0 (uL) GPC Factor: | Date Analyzed: 06/26/2006 |
| GPC Cleanup: (Y/N) N pH: | Dilution Factor: 1.0 |

| | | CONCENTRATION UNITS: | |
|-----------|------------------------------|----------------------|----|
| CAS NO. | COMPOUND | (ug/L or ug/kg) ug/L | Q |
| 100-52-7 | Benzaldehyde | 5.0 | Ū |
| 108-95-2 | Phenol | 5.0 | U |
| 111-44-4 | Bis(2-chloroethyl)ether | 5.0 | Ū |
| 95=57-8 - | 2-Chlorophenol " | 5.0 | Ü |
| 95-48-7 | 2-Methylphenol | 5.0 | Ū |
| 108-60-1 | 2,2'-Oxybis(1-chloropropane) | 5.0 | Ū, |
| 98-86-2 | Acetophenone | 5.0 | Ū |
| 106-44-5 | 4-Methylphenol | 5.0 | U |
| 621-64-7 | N-Nitroso-di-n-propylamine | 5.0 | Ū |
| 67-72-1 | Hexachloroethane | 5.0 | U |
| 98-95-3 | Nitrobenzene | 5.0 | Ū |
| 78-59-1 | Isophorone | 5.0 | U |
| 88-75-5 | 2-Nitrophenol | 5.0 | Ū |
| 105-67-9 | 2,4-Dimethylphenol | 5.0 | Ū |
| 111-91-1 | Bis(2-chloroethoxy)methane | 5.0 | Ū |
| 120-83-2 | 2,4-Dichlorophenol | 5.0 | Ū |
| 91-20-3 | Naphthalene | 5.0 | Ü |
| 106-47-8 | 4-Chloroaniline | 5.0 | U |
| 87-68-3 | Hexachlorobutadiene | 5.0 | U |
| 105-60-2 | Caprolactam | 5.0 | U |
| 59-50-7 | 4-Chloro-3-methylphenol | 5.0 | U |
| 91-57-6 | 2-Methylnaphthalene | 5.0 | Ü |
| 77-47-4 | Hexachlorocyclopentadiene | 5.0 | U |
| 88-06-2 | 2,4,6-Trichlorophenol | 5.0 | U |
| 95-95-4 | 2,4,5-Trichlorophenol | 5.0 | U |
| 92-52-4 | 1,1'-Biphenyl | 5.0 | U |
| 91-58-7 | 2-Chloronaphthalene | 5.0 | Ū |
| 88-74-4 | 2-Nitroaniline | 10 | U |
| 131-11-3 | Dimethylphthalate | 5.0 | Ū |
| 606-20-2 | 2,6-Dinitrotoluene | 5.0 | Ū |
| 208-96-8 | Acenaphthylene | 5.0 | U |
| 99-09-2 | 3-Nitroaniline | 10 | Ū |
| 83-32-9 | Acenaphthene | 5.0 | U |

Use first run

BP 8/28/04

EPA SAMPLE NO.

| J73W3RX | |
|---------|--|
| | |

| Lab Name: DataChem Laboratories, Inc. | Contract: EP-W-05-026 |
|------------------------------------------|----------------------------|
| Lab Code: DATAC Case No.: 35417 Mod. Ref | No.: SDG No.: <u>J73T9</u> |
| Matrix: (SOIL/SED/WATER) WATER | Lab Sample ID: 06C02713R1 |
| Sample wt/vol: 1000 (g/mL) mL | Lab File ID: RNS06C13 |
| Level: (LOW/MED) LOW | Extraction: (Type) CONT |
| % Moisture: Decanted: (Y/N) N | Date Received: 06/08/2006 |
| Concentrated Extract Volume: 1000 (uL) | Date Extracted: 06/20/2006 |
| Injection Volume: 1.0 (uL) GPC Factor: | Date Analyzed: 06/26/2006 |
| GPC Cleanup: (Y/N) N pH: | Dilution Factor: 1.0 |

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/kg) ug/L | Q |
|------------------|-------------------------------------|-------------------------------------------|-----|
| 51-28-5 | 2,4-Dinitrophenol | 10 | Ū |
| 100-02-7 | 4-Nitrophenol | 10 | Ŭ |
| 132-64-9 | Dibenzofuran | 5.0 | Ū |
| 121-14-2 | 2,4-Dinitrotoluene | 5.0 | Ū |
| 84-66-2 | Diethylphthalate | 5.0 | Ū |
| 86-73-7 | Fluorene | 5.0 | U |
| 7005-72-3 | 4-Chlorophenyl-phenylether | 5.0 | Ū |
| 100-01-6 | 4-Nitroaniline | 10 | Ŭ |
| 534-52-1 | 4,6-Dinitro-2-methylphenol | 10 | Ū |
| 86-30-6 | N-Nitrosodiphenylamine ¹ | 5.0 | Ü |
| 95-94-3 | 1,2,4,5-Tetrachlorobenzene | 5.0 | U |
| 101-55-3 | 4-Bromophenyl-phenylether | 5.0 | U |
| 118-74-1 | Hexachlorobenzene | 5.0 | U |
| 1912-24-9 | Atrazine | 5.0 | Ū |
| 87-86 - 5 | Pentachlorophenol | 10 | Ū |
| 85-01-8 | Phenanthrene | 5.0 | U |
| 120-12-7 | Anthracene | 5.0 | Ü |
| 86-74-8 | Carbazole | 5.0 | Ŭ |
| 84-74-2 | Di-n-butylphthalate | 5.0 | Ū |
| 206-44-0 | Fluoranthene | 5.0 | Ü |
| 129-00-0 | Pyrene | 5.0 | Ū |
| 85-68 - 7 | Butylbenzylphthalate | 5.0 | Ü |
| 91-94-1 | 3,3'-Dichlorobenzidine | 5.0 | Ū |
| 56-55 - 3 | Benzo(a)anthracene | 5.0 | Ū |
| 218-01-9 | Chrysene | 5.0 | Ū |
| 117-81-7 | Bis(2-ethylhexyl)phthalate | 5.0 2.45 | JEU |
| 117-84-0 | Di-n-octylphthalate | 5.0 | U |
| 205-99-2 | Benzo(b) fluoranthene | 5.0 | U |
| 207-08-9 | Benzo(k) fluoranthene | 5.0 | Ü |
| 50-32-8 | Benzo(a)pyrene | 5.0 | U |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 5.0 | Ü |
| 53-70-3 | Dibenzo(a,h)anthracene | 5.0 | Ū |
| 191-24-2 | Benzo(g,h,i)perylene | 5.0 | Ü |
| 58-90-2 | 2,3,4,6-Tetrachlorophenol | 5.0 | U |

¹Cannot be separated from Diphenylamine

use first run.

15/ 4/25/00 SOM01.1 (5/2037)

1K - FORM I SV-TIC

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

| |
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| |
| .T73W3RX |

| Lab Name: DataChem Laboratories, Inc. | Contract: EP-W-05-026 |
|------------------------------------------|----------------------------|
| Lab Code: DATAC Case No.: 35417 Mod. Ref | No.: SDG No.: <u>J73T9</u> |
| Matrix: (SOIL/SED/WATER) WATER | Lab Sample ID: 06C02713R1 |
| Sample wt/vol: 1000 (g/mL) mL | Lab File ID: RNS06C13 |
| Level: (LOW/MED) LOW | Extraction: (Type) CONT |
| % Moisture: Decanted: (Y/N) N | Date Received: 06/08/2006 |
| Concentrated Extract Volume: 1000 (uL) | Date Extracted: 06/20/2006 |
| Injection Volume: 1.0 (uL) GPC Factor: | Date Analyzed: 06/26/2006 |
| GPC Cleanup: (Y/N) N pH: | Dilution Factor: 1.0 |
| | |

CONCENTRATION UNITS: (ug/L or ug/kg) ug/L

| CAS NUMBER | COMPOUND NAME | RT | EST. CONC. | Q |
|-----------------------------------|----------------------------|-------------|---------------------------------------|------|
| | Unsaturated Hydrocarbon | 3.95 | 5.4 | J |
| | Unknown oxyhydrocarbon | 4.53 | Z.1 | JB |
| ۱۰۰ سما پاچک برو مانیا بود دارد د | · Polycyclic hydrocarbon · | 18.87 | 17 | · JB |
| | Polycyclic hydrocarbon | 24.23 | 26 | JB |
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| E9667962 | Total Alkanes | N/A | 19 | J |

²EPA-designated Registry Number.

SOM01.1 (5/**368**)

EPA SAMPLE NO.

| J7 | 3T9 | |
|----|-----|--|

| Lab Name: Dat | taChem Laboratories, Inc. | Contract: | EP-W-05-026 | |
|---------------|------------------------------|-----------|-------------------------|--------------|
| Lab Code: DAT | TAC Case No.: 35417 Mod. Ref | No.: | SDG No.: J73T9 | |
| | L/SED/WATER) WATER | | e ID: <u>06C02709</u> | |
| Sample wt/vol | l: 1000 (g/mL) mL | Lab File | ID: 21060625A050,210606 | 25B050 |
| | Decanted: (Y/N) | Date Rece | eived: 06/08/2006 | |
| | (Type) SEPF | Date Extr | macted: 06/13/2006 | |
| | Extract Volume: 10000 (uL) | Date Anal | yzed: <u>06/26/2006</u> | |
| | lume: 2.0 (uL) GPC Factor: | | ion Factor: 1.0 | |
| | (Y/N) N pH: | | Leanup: (Y/N) N | |
| | | | | |
| CAS NO. | COMPOUND | | CONCENTRATION UNITS: | Q. |
| | | | (ug/L or ug/kg) ug/L | ¥ . |
| 319-84-6 | alpha-BHC | | 0.050 | U |
| 319-85-7 | beta-BHC | | 0.050 | Ü |
| 319-86-8 | delta-BHC | | 0.050 | ប |
| 58-89-9 | gamma-BHC (Lindane) | | 0.0014 | J Q |
| 76-44-8 | Heptachlor | | 0.0025 | . Ј Q |
| 309-00-2 | Aldrin | | 0.050 | Ü |
| 1024-57-3 | Heptachlor epoxide | | 0.050 | Ū |
| 959-98-8 | Endosulfan I | | 0.050 | Ü |
| 60-57-1 | Dieldrin | | 0.10 | Ü |
| 72-55-9 | 4,4'-DDE | | 0.10 D-0020 | U YEL |
| 72-20-8 | Endrin | | 0.0016 | J |
| 33213-65-9 | Endosulfan II | | 0.10 2-8019 | 2ºU |
| 72-54-8 | 4,4'-DDD | | 0.10 | Ū, |
| 1031-07-8 | Endosulfan sulfate | | 0.0049 | J ≱ Q |
| 50-29-3 | 4,4'-DDT | | 0.10 2.0030 | JPU |
| 72-43-5 | Methoxychlor | | 0.50 2.70 | JBPU |
| 53494-70-5 | Endrin ketone | | 0.10 | Ū |
| 7421-93-4 | Endrin aldehyde | | 0.10_0-011 | - JBP U |
| 5103-71-9 | alpha-Chlordane . | | 0.050 | U |
| 5103-74-2 | gamma-Chlordane | | 0.050 | Ū |
| 8001-35-2 | Toxaphene | | 5.0 | U |

BP8/28/66

EPA SAMPLE NO.

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| | J73W0 |
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| Lab Name: Dat | aChem Laboratories, Inc. | Contract: EP-W-05-026 | |
|---------------|--------------------------------|-----------------------------------|-------------|
| Lab Code: DAT | TAC Case No.: 35417 Mod. Ref | No.: SDG No.: <u>J73T9</u> | |
| Matrix: (SOI | L/SED/WATER) SOIL | Lab Sample ID: 06C02710 | |
| | 1: 30.0 (g/mL) g | Lab File ID: 21060625A057,2106062 | 5B057 |
| % Moisture: 1 | Decanted: (Y/N) N | Date Received: 06/08/2006 | |
| Extraction: | (Type) SONC | Date Extracted: 06/15/2006 | |
| | Extract Volume: 10000 (uL) | Date Analyzed: 06/26/2006 | |
| | lume: 2.0 (uL) GPC Factor: 1.0 | | |
| | | | |
| GPC Cleanup: | (Y/N) Y pH: <u>6.8</u> | Sulfur Cleanup: (Y/N) N | |
| CAS NO. | COMPOUND | CONCENTRATION UNITS: | Q |
| | | (ug/L or ug/kg) ug/kg | |
| 319-84-6 | alpha-BHC | 2.0 | Ū |
| 319-85-7 | beta-BHC | 2.0 | Ū |
| 319-86-8 | delta-BHC | 2.0 | , Q |
| 58-89-9 | gamma-BHC (Lindane) | 2.0 | Ŭ |
| 76-44-8 | Heptachlor | 2.0 | Ū |
| 309-00-2 | Aldrin | 2.0 | U |
| 1024-57-3 | Heptachlor epoxide | 0.042 | J /Q |
| 959-98-8 | Endosulfan I | 2.0 | Ū |
| 60-57-1 | Dieldrin | 3.9 | υ |
| 72-55-9 | 4,4'-DDE | 3.9 | Ū |
| 72-20-8 | Endrin | 3.9 | , U |
| 33213-65-9 | Endosulfan II | 3.9 | Ü |
| 72-54-8 | 4,4'-DDD | 3.9 | Ū |
| 1031-07-8 | Endosulfan sulfate | 3.9 | Ü |
| 50-29-3 | 4,4'-DDT | 3.9 | Ü |
| 72-43-5 | Methoxychlor | 20 1.0 | .88U |
| 53494-70-5 | Endrin ketone | . 3.9 | Ü |
| 7421-93-4 | Endrin aldehyde | 3.9 | Ū |
| 5103-71-9 | alpha-Chlordane | 2.0 | Ü |
| 5103-74-2 | gamma-Chlordane | 2.0 | U |

8001-35-2

Toxaphene

200

EPA SAMPLE NO.

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| J7 | 3W1 | |
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| | | <u>L</u> | | |
|-------------------------------------------------------------|------------------------------|---------------------------------------------|--|--|
| Lab Name: DataChem Laboratories, Inc. Contract: EP-W-05-026 | | | | |
| Lab Code: <u>DAT</u> | TAC Case No.: 35417 Mod. Ref | No.: SDG No.: <u>J73T9</u> | | |
| Matrix: (SOII | L/SED/WATER) <u>WATER</u> | Lab Sample ID: 06C02711 | | |
| Sample wt/vol | l: 1000 (g/mL) mL | Lab File ID: 21060625A051,21060625B051 | | |
| % Moisture: _ | Decanted: (Y/N) | Date Received: 06/08/2006 | | |
| Extraction: | (Type) SEPF | Date Extracted: 06/13/2006 | | |
| Concentrated | Extract Volume: 10000 (uL) | Date Analyzed: 06/26/2006 | | |
| Injection Vol | lume: 2.0 (uL) GPC Factor: | Dilution Factor: 1.0 | | |
| GPC Cleanup: | (Y/N) <u>N</u> pH: | Sulfur Cleanup: (Y/N) N | | |
| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/kg) ug/L Q | | |
| 319-84-6 | alpha-BHC | 0.05 DAGE FU | | |
| 319-85-7 | beta-BHC | 0.050 U | | |
| 319-85-8- | delta-890 | 0.050 U | | |
| | | | | |

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/kg) ug/L | Q |
|------------|---------------------|-------------------------------------------|----------------|
| 319-84-6 | alpha-BHC | 0.05 2 0022 | <i>کا جن</i> ہ |
| 319-85-7 | beta-BHC | 0.050 | Ū |
| 319-85-8- | delta-BHC | 0.050 | Ū |
| 58-89-9 | gamma-BHC (Lindane) | 0.050 | Ü |
| 76-44-8 , | Heptachlor | 0.050 | U |
| 309-00-2 | Aldrin | 0.050 | Ū |
| 1024-57-3 | Heptachlor epoxide | 0.050 | U |
| 959-98-8 | Endosulfan I | 0.05 2-0033 | المجتر |
| 60-57-1 | Dieldrin | 0.10 | . ℧ |
| 72-55-9 | 4,4'-DDE | 0.0021 | JQ |
| 72-20-8 | Endrin | 0.10 | Ū |
| 33213-65-9 | Endosulfan II | 0.10 0.84 | JE U |
| 72-54-8 | 4,4'-DDD | 0.10 | Ū |
| 1031-07-8 | Endosulfan sulfate | 0.10 2-8027 | HU |
| 50-29-3 | 4,4'-DDT | 0.10 2-0068 | ں ہیر |
| 72-43-5 | Methoxychlor | 0.50 2-079 | JBPU |
| 53494-70-5 | Endrin ketone | 0.10 2.0028 | Nark |
| 7421-93-4 | Endrin aldehyde | 0.10 2-910 | JEPU |
| 5103-71-9 | alpha-Chlordane | 0.050 | Ü |
| 5103-74-2 | gamma-Chlordane | 0.050 | Ü |
| 8001-35-2 | Toxaphene | 5.0 | Ü |

BP8/28/00

EPA SAMPLE NO.

| J73W | 2 | |
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| Lab Name: DataChem Laboratories, Inc. | Contract: EP-W-05-026 |
|------------------------------------------------|----------------------------------------|
| Lab Code: DATAC Case No.: 35417 Mod. Ref | No.: SDG No.: <u>J73T9</u> |
| Matrix: (SOIL/SED/WATER) SOIL | Lab Sample ID: 06C02712 |
| Sample wt/vol: 30.0 (g/mL) g | Lab File ID: 21060625A058,21060625B058 |
| % Moisture: <u>25</u> Decanted: (Y/N) <u>N</u> | Date Received: 06/08/2006 |
| Extraction: (Type) SONC | Date Extracted: 06/15/2006 |
| Concentrated Extract Volume: 10000 (uL) | Date Analyzed: 06/26/2006 |
| Injection Volume: 2.0 (uL) GPC Factor: 1.0 | Dilution Factor: 1.0 |
| GPC Cleanup: (Y/N) Y pH: 7.1 | Sulfur Cleanup: (Y/N) N |

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg | Q |
|-------------------|---------------------|--------------------------------------------|------|
| 319-84-6 | alpha-BHC | 2.3 | Ū · |
| 319-85 - 7 | beta-BHC | 2.3 | U |
| 319-86-8 - | delta-BHC | 2.3 | U · |
| 58-89-9 | gamma-BHC (Lindane) | 2.3 | Ü |
| 76-44-8 | Heptachlor | 2.3 | U |
| 309-00-2 | Aldrin | 2.3 | U |
| 1024-57-3 | Heptachlor epoxide | 2.3 | U |
| 959-98-8 | Endosulfan I | 2.3 | U |
| 60-57-1 | Dieldrin | 4.4 | Ū |
| 72-55-9 | 4,4'-DDE | 4.4 | Ū |
| 72-20-8 | Endrin | 4.4 | U |
| 33213-65-9 | Endosulfan II | 4.4 | U |
| 72-54-8 | 4,4'-DDD | 4.4 | Ū |
| 1031-07-8 | Endosulfan sulfate | 4.4 | U |
| 50-29-3 | 4,4'-DDT | 4.4 | Ū |
| 72-43-5 | Methoxychlor | 23 10 | .abu |
| 53494-70-5 | Endrin ketone | 4.4 | Ü |
| 7421-93-4 | Endrin aldehyde | 4.4 | U |
| 5103-71-9 | alpha-Chlordane | 2.3 | U |
| 5103-74-2 | gamma-Chlordane | 2.3 | Ū |
| 8001-35-2 | Toxaphene | 230 | U |

EPA SAMPLE NO.

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| J73W3 | |
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| | | • | Ĺ | J/3 | W3 |
|---------------|------------------------------|--------------|----------------------------|----------------|--------|
| Lab Name: Dat | aChem Laboratories, Inc. | Contract: EP | -W-05-026 | | |
| Lab Code: DAT | CAC Case No.: 35417 Mod. Ref | No.: | SDG No. | : <u>J73T9</u> | |
| Matrix: (SOI | L/SED/WATER) <u>WATER</u> | Lab Sample I | D: 06C02713 | | |
| | 1: 1000 (g/mL) mL | | | | 25B052 |
| | Decanted: (Y/N) | | | | |
| Extraction: | (Type) SEPF | Date Extract | ed: 06/13/2 | 006 | |
| | Extract Volume: 10000 (uL) | Date Analyze | d: <u>06/26/20</u> | 06 | |
| Injection Vol | lume: 2.0 (uL) GPC Factor: | Dilution | Factor: 1. | 0 | |
| GPC Cleanup: | (Y/N) <u>N</u> pH: | Sulfur Clear | nup: (Y/N) <u>1</u> | N | |
| CAS NO. | COMPOUND | | NCENTRATION g/L or ug/k | | Q |
| 319-84-6 | alpha-BHC | | | 0.050 | Ū |
| 319-85-7 | beta-BHC | | | 0.050 | Ū |
| 319-86-8- | delta-BHC | | | - 0.050 | Ü |
| 58-89-9 | gamma-BHC (Lindane) | | | 0.050 | Ü |
| 76-44-8 | Heptachlor | | | 0.0022 | JZQ |
| 309-00-2 | Aldrin | | | 0.050 | Ū |
| 1024-57-3 | Heptachlor epoxide | | 0.05 | 1.0012 | J. U |
| 959-98-8 | Endosulfan I | | | 0.050 | Ū |
| 60-57-1 | Dieldrin | | | 0.10 | Ü |
| 72-55-9 | 4,4'-DDE | | | 0.10 | Ū |

72-20-8

72-54-8

50-29-3

72-43-5

53494-70-5

7421-93-4

5103-71-9

5103-74-2

8001-35-2

1031-07-8

33213-65-9

Endrin

4,4'-DDD

4,4'-DDT

Toxaphene

Endosulfan II

Methoxychlor

Endrin ketone

Endrin aldehyde

alpha-Chlordane

gamma-Chlordane

Endosulfan sulfate

Blevalor

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5.0

0.10 2.0073

0.50 2-835

0.10 2 0063

EPA SAMPLE NO.

| J73T9 | _ |
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| 0,019 | |

| Lab Name: Dat | taChem Laboratories, Inc. | Contract: EP-W-05-026 |
|---------------|------------------------------|---------------------------------------------|
| Lab Code: DAT | TAC Case No.: 35417 Mod. Rei | No.: SDG No.: <u>J73T9</u> |
| Matrix: (SOI | L/SED/WATER) WATER | Lab Sample ID: 06C02709 |
| Sample wt/vo | l: 1000 (g/mL) mL | Lab File ID: 19060620A020,19060620B020 |
| % Moisture: _ | Decanted: (Y/N) | Date Received: 06/08/2006 / |
| Extraction: | (Type) SEPF | Date Extracted: 06/13/2006 |
| | Extract Volume: 10000 (uL) | Date Analyzed: 06/21/2006 |
| Injection Vo | lume: 2.0 (uL) GPC Factor: | Dilution Factor: 1.0 |
| GPC Cleanup: | (Y/N) N pH: | Sulfur Cleanup: (Y/N) N |
| Acid Cleanup | : (Y/N) <u>Y</u> | |
| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/kg) ug/L Q |
| 12674-11-2 | Aroclor-1016 | 1.0 U |
| 11104-28-2 | Aroclor-1221 · | 1.0 0 |
| 11141-16-5 | Aroclor-1232 | 1.0 U |
| 53469-21-9 | Aroclor-1242 | . 1.0 U |
| 12672-29-6 | Aroclor-1248 | . 1.0 U |
| 11097-69-1 | Aroclor-1254 | . 1.0 U |
| 11096-82-5 | Aroclor-1260 | 1.0 U |
| 37324-23-5 | Aroclor-1262 | 1.0 U |

11100-14-4

Aroclor-1268

100 g | 28 | 00

EPA SAMPLE NO.

| J73W0 | |
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| Lab Name: Dat | aChem Laboratories, Inc. | Contract: EP-W-05-026 |
|---------------|--------------------------------|----------------------------------------------|
| Lab Code: DAT | TAC Case No.: 35417 Mod. Ref | 5 No.: SDG No.: <u>J73T9</u> |
| Matrix: (SOI | L/SED/WATER) SOIL | Lab Sample ID: 06C02710 |
| Sample wt/vo | 1: 30.0 (g/mL) g | Lab File ID: 19060620A028,19060620B028 |
| % Moisture: 1 | Decanted: (Y/N) N | Date Received: 06/08/2006 |
| | (Type) SONC | Date Extracted: 06/14/2006 |
| | Extract Volume: 10000 (uL) | |
| | lume: 2.0 (uL) GPC Factor: 1.0 | |
| | (Y/N) Y pH: 6.8 | • |
| | : (Y/N) <u>Y</u> | • |
| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg Q |
| 12674-11-2 | Aroclor-1016 | 39 U |
| 11104-29-2 | Aroclor-1221 | 39 U |
| 11141-16-5 | Aroclor-1232 | 39 U |
| 53469-21-9 | Aroclor-1242 | 39 U |
| 12672-29-6 | Aroclor-1248 | 39 U |
| 11097-69-1 | Aroclor-1254 | ' 39 U |
| 11096-82-5 | Aroclor-1260 | . 39 U |

37324-23-5

11100-14-4

Aroclor-1262

Aroclor-1268

B125/00

EPA SAMPLE NO.

| J73W1 | |
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| Lab Name: Dat | aChem Laboratories, Inc. | Contract: EP-W-05-026 |
|---------------|------------------------------|---------------------------------------------|
| Lab Code: DAT | CAC Case No.: 35417 Mod. Ref | No.: SDG No.: J73T9 |
| Matrix: (SOI | L/SED/WATER) WATER | Lab Sample ID: 06C02711 |
| Sample wt/vo. | 1: 1000 (g/mL) mL | Lab File ID: 19060620A021,19060620B021 |
| % Moisture: | Decanted: (Y/N) | Date Received: 06/08/2006 |
| | (Type) SEPF | Date Extracted: 06/13/2006 |
| | Extract Volume: 10000 (uL) | Date Analyzed: 06/21/2006 |
| | lume: 2.0 (uL) GPC Factor: | |
| | (Y/N) N pH: | |
| | : (Y/N) <u>Y</u> | |
| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/kg) ug/L Q |
| 12674-11-2 | Aroclor-1016 | 1.0 U |
| 11104-28-2 | Aroclor-1221 | 1.0 U |
| 11141-16-5 | Aroclor-1232 | 1.0 U |
| 53469-21-9 | Aroclor-1242 | . 1.0 U |
| 12672-29-6 | Aroclor-1248 | 1.0 U |
| 11097-69-1 | Aroclor-1254 | 1.0 U |
| 11096-82-5 | Aroclor-1260 | 1.0 U |
| 37324-23-5 | Aroclor-1262 | 1.0 U |

11100-14-4

Aroclor-1268

EPA SAMPLE NO.

| Lab Name: DataChem Laboratories, Inc. | Contract: EP-W-05-026 |
|------------------------------------------------|----------------------------------------|
| Lab Code: DATAC Case No.: 35417 Mod. Ref | No.: SDG No.: <u>J73T9</u> |
| Matrix: (SOIL/SED/WATER) SOIL | Lab Sample ID: 06C02712 |
| Sample wt/vol: 30.0 (g/mL) g | Lab File ID: 19060620A029,19060620B029 |
| % Moisture: <u>25</u> Decanted: (Y/N) <u>N</u> | Date Received: 06/08/2006 |
| Extraction: (Type) SONC | Date Extracted: 06/14/2006 |
| Concentrated Extract Volume: 10000 (uL) | Date Analyzed: 06/21/2006 |
| Injection Volume: 2.0 (uL) GPC Factor: 1.0 | Dilution Factor: 1.0 |
| GPC Cleanup: (Y/N) Y pH: 7.1 | Sulfur Cleanup: (Y/N) N |
| Acid Cleanup: (Y/N) Y | |
| | CONCENTRATION INTES. |

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg | Q |
|------------|--------------|--------------------------------------------|-----|
| 12674-11-2 | Aroclor-1016 | 44 | Ŭ. |
| 11104-28-2 | Aroclor-1221 | 44 | · Ü |
| 11141-16-5 | Aroclor-1232 | 4.4 | U |
| 53469-21-9 | Aroclor-1242 | 44 | Ü |
| 12672-29-6 | Aroclor-1248 | 44 | Ū |
| 11097-69-1 | Aroclor-1254 | 44 | Ū |
| 11096-82-5 | Aroclor-1260 | 44 | Ū |
| 37324-23-5 | Aroclor-1262 | 4 4 | Ū. |
| 11100-14-4 | Aroclor-1268 | . 44 | Ū |

EPA SAMPLE NO.

| J73W3 | |
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|-----------------------|---------------------------------|---------------------------------------------|--|--|
| Lab Name: Dat | aChem Laboratories, Inc. | Contract: EP-W-05-026 | | |
| Lab Code: DAT | TAC Case No.: 35417 Mod. Ref | No.: SDG No.: <u>J73T9</u> | | |
| Matrix: (SOI | L/SED/WATER) <u>WATER</u> | Lab Sample ID: 06C02713 | | |
| Sample wt/vo | 1: <u>1000</u> (g/mL) <u>mL</u> | Lab File ID: 19060620A022,19060620B022 | | |
| % Moisture: _ | Decanted: (Y/N) | Date Received: 06/08/2006 | | |
| Extraction: | (Type) SEPF | Date Extracted: 06/13/2006 | | |
| | Extract Volume: 10000 (uL) | Date Analyzed: 06/21/2006 | | |
| Injection Vol | lume: 2.0 (uL) GPC Factor: | Dilution Factor: 1.0 | | |
| GPC Cleanup: | (Y/N) N pH: | Sulfur Cleanup: (Y/N) N | | |
| Acid Cleanup: (Y/N) Y | | | | |
| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/kg) ug/L Q | | |
| 12674-11-2 | Aroclor-1016 | 1.0 U | | |
| 11104-28-2 | Aroclor-1221 | 1.0 U | | |
| 11141-16-5 | Aroclor-1232 | 1.0 U | | |
| 53469-21-9 | Aroclor-1242 | 1.0 U | | |
| 12672-29-6 | Aroclor-1248 | 1.0 U | | |
| 11097-69-1 | Aroclor-1254 | 1.0 U | | |
| 11096-82-5 | Aroclor-1260 | 1.0 U | | |
| 37324-23-5 | Aroclor-1262 | 1.0 U | | |
| 11100-14-4 | Aroclor-1268 | 1.0 U | | |